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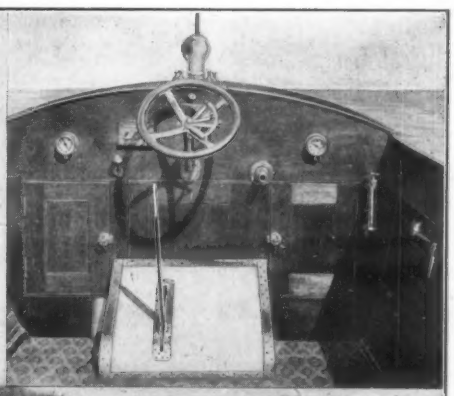

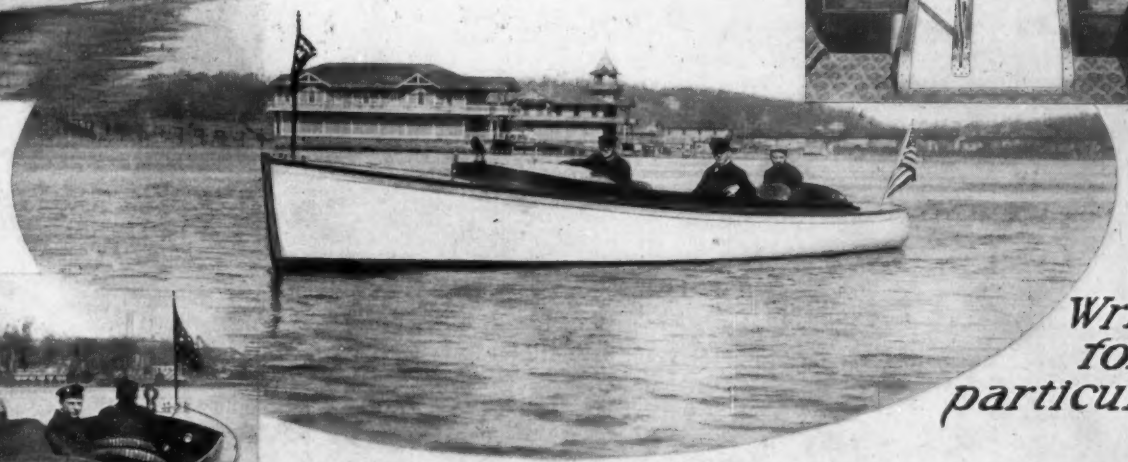

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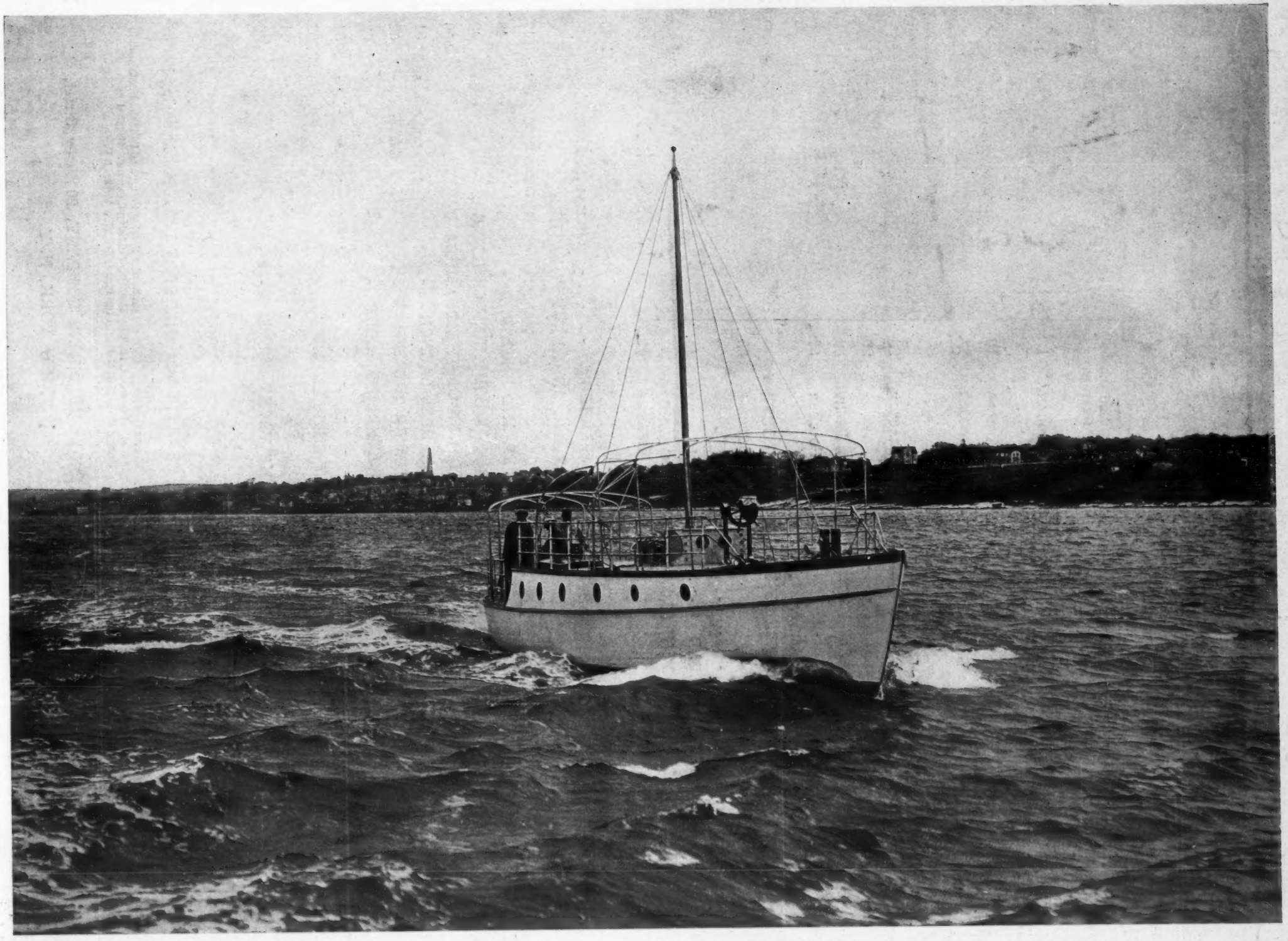

Photograph by E. Levick.

HEATHER, WINNER OF THE NEW YORK-BERMUDA POWER BOAT RACE.

YACHTING

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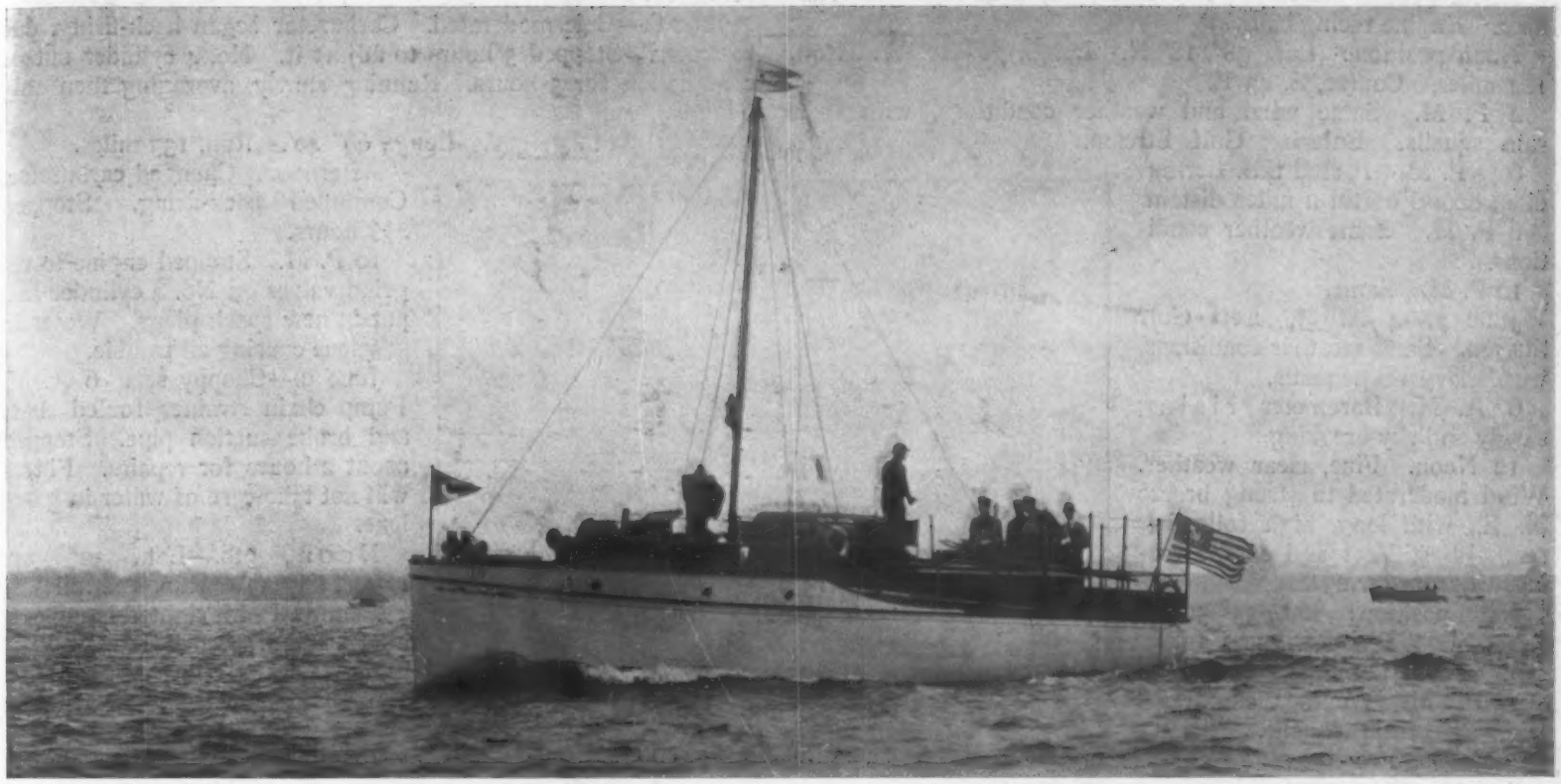

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ILYS, THE SMALLEST OF THE FLEET, LED THE WAY TO THE ROAMER.

The Power Boat Race to Bermuda

By K. F. TRIMINGHAM

AT twenty minutes past four o'clock on Saturday afternoon, June 5, the four staunch and seaworthy motor boats Insep, Nereides II, Ilys and Heather, in order named, crossed the starting line at Gravesend Bay, bound for Bermuda, for what proved to be a race that not only tested to the utmost boats and engines but crews as well.

The weather conditions were anything but propitious, for a fog which hung low over the bay at the start gave place to wind and sea as soon as the little vessels got off shore. High northeast winds developed finally into a northeast gale, which continued until after the boats had crossed the Gulf Stream, and then moderated somewhat; but conditions continued bad until the finish line, off St. David's Head, was reached and mud-hooks were dropped in the quiet waters of the harbor.

In spite of these adverse conditions, the boats behaved splendidly, and the various crews speak in the highest terms of the performances of their respective ships. Insep's crew boasts of having no water at all on deck, and this statement is borne out by the perfect condition the boat was in on reaching port. One of the enthusiastic members of the crew remarked that he was perfectly confident of the boat's ability to cross the Atlantic in any weather in perfect safety. Heather's crew spoke in the same terms of their boat, and boasted that theirs was the only motor boat whose crew did not pay tribute to Neptune.

The trip was made by Heather, the scratch boat and winner of the race, in 3 days, 8 hours and 58 minutes, which, under the conditions, was fairly good time.

The next arrival was Nereides II, 10 hours and 14 minutes after Heather. Nereides had an allowance of 7 hours, 23 minutes and 24 seconds, so was only beaten 2 hours, 50 minutes and 36 seconds on corrected time—a very creditable performance when it is remembered that she was only launched a week before the race.

Ilys and Insep did not arrive until five and six hours, respectively, after Nereides. Ilys had trouble with her engine, and Insep, unfortunately, had a supply of bad gasolene, which marred her chances of winning.

Heather was designed and built at Greenport, N. Y., by the Greenport Basin & Construction Company, and is the property of Mr. Richmond Levering. The boat, 58 feet over all, with a hull that looks as though it would defy all attempts of wind and weather, is equipped with a 40-horsepower Standard engine, which fully justified all expectations as to its ability to drive the boat under adverse conditions. Out of 1,280 gallons of gasolene carried for the trip only 380 were used, showing what a large cruising radius a boat of this type has. She was under the able command of Capt. Fred J. Maureshoff, who sailed the schooner Venona to victory in last year's New York-Bermuda race.

Heather's log follows:

Saturday, June 5.—Hazy, with fine rain. Crossed starting line 4.21.30 P. M.

5.43 P. M. Passed Scotland Lightship; log put overboard—47½ miles.

8 P. M. Hazy weather and cloudy. Moderate east swell and easterly breeze. Low barometer, reading 29.60.

12 P. M. Same weather conditions.

June 6.—2 A. M. Wind backing to northeast. Mod-

erate breeze. Set jib to steady boat and help steering.

4 A. M. Wind freshening; cloudy. Barometer 29.64.

4 to 8 A. M. Wind increasing to moderate gale, with high seas running. Hazy weather, cloudy sky. Barometer 29.69.

Noon. Wind increasing to whole gale, with high seas running. Engine racing badly.

Noon position: Lat., 38° 18′ N. Long., 71° 20′ W. Run, 182 miles. Course, S. 43 E.

4 P. M. Same wind and weather conditions, with light rain squalls. Entering Gulf Stream.

6.45 P. M. Passed S.S. Bermudian, bound north, 2 miles distant.

8 P. M. Same weather conditions.

12 P. M. Same.

June 7.—4 A. M. Left Gulf Stream. Same weather conditions, with heavy rain squalls.

6 A. M. Barometer rising slowly and sky breaking.

12 Noon. Fine, clear weather. Wind moderated to strong breeze N. E., with long, high following sea. Jib still set and engine racing. Barometer 29.88

Noon position: Lat., 35° 52′ N. Long., 69° W. Run, 203 miles. Course, S. 44 E.

4 P. M. Weather cloudying, with light rain squalls. Strong breeze, rough sea.

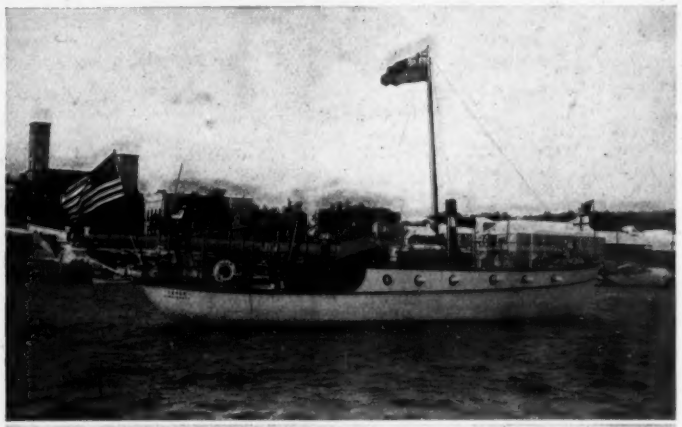
8 P. M. to 12 P. M. Same weather conditions.

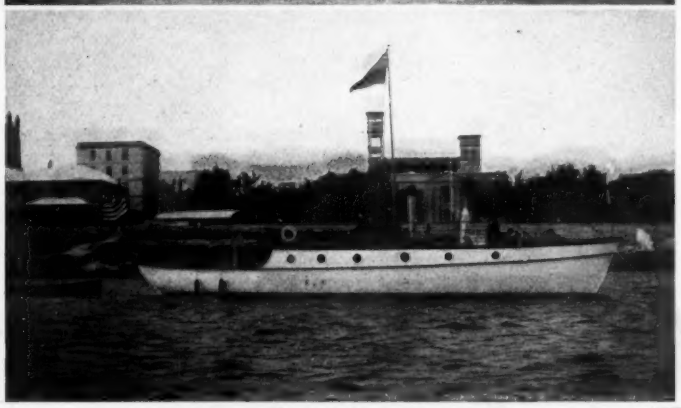
Tuesday, June 8.—4 A. M. Cloudy; sky clearing some. Strong breeze; rough sea; engine racing.

8 A. M. Fine, clear, strong wind; rough sea; engine racing.

Noon. Weather cloudying again. Same wind and sea. Lat., 33° 22′. Long., 65° 59′. Run, 205 miles. Course, S. 50 E.

Afternoon and evening cloudy, with rain squalls. Made St. David's Head 10.30 P. M. Crossed line at 1.17 A. M. 9th. Anchored at St. George's Middle Ground 1.45 A. M.





AT THE END OF THE PASSAGE.
ANCHORED IN THE HARBOR.
AT BERMUDA.

Insep, a sister boat to Heather, designed and built by the same firm, is equipped with a 40-horsepower Jager engine, and had as chief engineer Mr. Charles Jager, of Boston, the designer and builder of the engine. Like Heather, Insep behaved splendidly during the rough trip; but, unfortunately, the boat had to be stopped 13½ hours, owing to water in gasolene, which practically put her out of the race. Insep's log is as follows:

June 5.—Crossed line 11 seconds after gun; first boat to cross. Proceeded full speed towards Bermuda. Weather thick and hazy. Wind N. E.; moderate sea. Lost sight of boats at dark.

June 6.—Wind freshening from N. E. Bad cross sea running. Engine working finely. In company with sloop Marchioness all day.

Noon. Lat., 38° 15′. Long., 71° 19′. Run, 181 miles, dead reckoning.

June 7.—Gale increasing and backing to north. Sea bad. In company with Marchioness all afternoon. Engine running well; wind increasing to fierce gale. Ship doing splendidly.

Noon. Lat., 35° 35′. Long., 68° 33′. Run, 216 miles, by observation.

June 8.—Gale moderated. Carburetor began back-firing, due to water. Stopped 5 hours to adjust it. No. 4 cylinder out of commission for 5 hours. Running slowly, averaging then only 6 knots.

Noon. Lat., 33° 55′. Long., 66° 40′. Run, 135 miles.

Afternoon. Changed carburetor. Continued back-firing. Stopped 4½ hours.

10 P. M. Stopped engine to regrind valves on No. 4 cylinder and put in new spark plugs. Water in gasolene causing all trouble.

June 9.—Choppy sea. 6 A. M. Pump chain strainer fouled shaft and broke suction pipe. Stopped about 2 hours for repairs. Filters will not take care of water in gasolene.

Noon, 9th.—Lat., 32° 34′. Long., 64° 45′. Run, 128 miles.

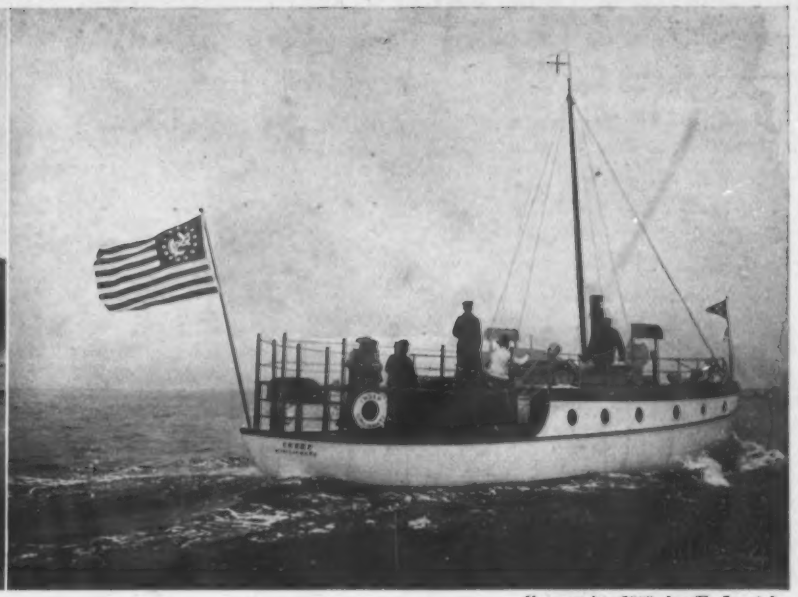
About 1 P. M. sighted land bearing S., and proceeded slowly around reefs. Crossed line 5.45. Used 400 gallons gasolene. Had jib set since Saturday night.

Nereides II, in charge of Walter M. Bieling, with her owner, Mr. Francis C. Rogers, as first mate, crossed finish line on June 9, 11.30 A. M., after a rough trip. Nereides made a landfall at the western end of the Island, where the reefs make navigation a perilous task, and unfortunately became entangled in the reefs making out from the land. To make matters worse, the motor stopped, which necessitated an anchor being put over. Owing to the strong northeast wind and heavy sea which was running, the hawser parted, and the boat grazed the reef, but luckily sustained no damage. When she finally got clear of the reefs Nereides made for the finish line, and, after crossing, was towed into the harbor.

The boat went into the race in an incomplete condition, and her crew deserve great credit for the way in which she was handled without having had any trial-trips. Five gallons of gasolene was all Nereides had left after crossing the line. She has a 40-horsepower Sterling motor, which ran in a satisfactory manner, and the time made, considering the condition of sea and the short time there was to get the boat and engine in good running form, was most creditable. The log of this boat could not be obtained.

Ilys, under the command of Captain Thomas Fleming Day, also experienced heavy weather, but proved an able boat, and had it not been for an overheated bearing, would, no doubt, have been well up at the finish. About two hours after the start the forward connecting-rod box became heated, which practically put the boat

WAITING FOR THE STARTING SIGNAL. NEREIDES II AND ILYS.



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INSEP OUTWARD BOUND FOR BERMUDA.

out of the race, as the motor could not be driven at full speed. Apart from this the engine, a 25-H. P. Hall, worked perfectly.

The engine room of this boat was remarkably well ventilated, and the ports were open during the whole passage—a remarkable thing for a 50-foot motor boat in such weather as was encountered.

The log of Ilys:

June 5.—Crossed line 4.20 P. M., engine turning about 600 R. P. M. Ilys, Insep, Nereides II crossed together; Heather 3 seconds later. We took lead and passed Roamer 30 seconds ahead of second boat. Wind N. E. Moderate sea. Left Scotland Lightship bearing E. ½ mile distant. At 6.20 engine ran hot. Connecting-rod of forward cylinder melted boxes. Machine stopped, due to carelessness of engineers. Took engine apart as soon as cool and repaired. At 8.50 started up and ran for ten minutes, when we stopped engine again to scrape boxes. Started again 10.30. Lost time, 4 hours 10 minutes. Ran on three cylinders until 4 A. M. Wind increasing all night, sea growing.

June 6.—This day began cloudy. N. E. wind, rising sea. Making 6 to 7 knots. Distance at noon, 129 miles; 3 P. M., blowing hard; wind N. E. Heavy sea.

June 7.—This day begins with strong N. E. winds; ship doing well. Distance at noon, 170 miles. Weather cleared up in P. M. Sea moderated. Boat averaging 8 knots.

June 8.—This day begins with clear sky and N. E. wind. Small sea. Vessel rolling heavily, making 8 knots. Engine running slow, owing to bearings. Good sights. Distance, 172 miles.

June 9.—This day begins with strong S. E. wind and high head sea. Speed dropping to 5 knots. Sighted land at 2 P. M. Crossed finish line 3.48 P. M., New York time, and anchored in St. George's harbor.

The Bermuda Race from the Deck of Amorita

By L. B. WOODS

ON THE JIB DOWNHAUL.

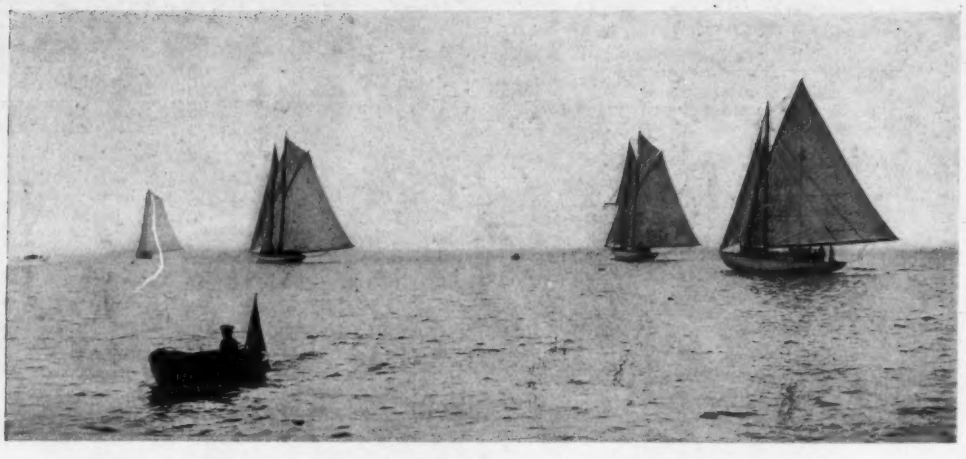
WHEN the result of this year's Bermuda race was cabled back, and it was announced that the leading boats had finished only two minutes apart, and that the windjammers had not only beaten the record for this race, but had beaten the power boats that started on the same day, it was realized what a stirring, hard-fought race it had been from start to finish. It was a race that will live long in the memories of those who took part in it and witnessed the struggle, and will add another to those cherished traditions which will be handed down to future generations and with which the history of the sport is so rich.

The race was from a starting line in front of the Atlantic Yacht Club at Sea Gate to a point off St. David's Head, in Bermuda, a distance of 670 nautical miles, and was held this year under the joint auspices of the Atlantic and Royal Bermuda Yacht Clubs. Five sailing yachts appeared at the starting line. They were the

	Racing Length. Feet.	Allowance. H. M.
Amorita, schooner, W. L. Baum, M. D., Chicago Y. C.	99	Allows
Crusader II, schooner, Edwin Palmer, Atlantic Y. C.	97	1 30
Margaret, schooner, George S. Runk, New York Y. C.	97	1 30
Restless, schooner, Leedom Sharp, M. D., Yachtsmen's Club	38	45 45
Marchioness, sloop, J. P. Crozer, Yachtsmen's Club	67	24 00

The fleet was started at 10 o'clock on the morning of June 5. Captain Barr was first over the line with Crusader II, but McLeod was close on his heels with Amorita. Margaret crossed twenty seconds behind Amorita, Marchioness followed four minutes later, and the little Restless brought up the rear several minutes after.

WET WORK.



THE START. THE BOATS CROSSED THE LINE IN A LIGHT NORTHEAST WIND.

A light breeze from the E.-N. E. allowed the boats to reach comfortably to the first mark, and they bore down on it in the order named. A wet, penetrating fog hung heavily over the bay, and occasional showers of fine, drenching rain made conditions thoroughly disagreeable. But throughout the race favorable weather was experienced. There was rain, rough sea, and at times a little too much wind; but no tedious calms were run into, and the terrific storms met by some of the yachts in previous races were conspicuous by their absence. The breeze was generally fair, and so steady in direction that aboard the Amorita we carried the boom on the same side from start to finish. Only for a short time did reefing have to be resorted to, and it speaks volumes for the success of the trip that we averaged around 8½ knots an hour over the entire course. After a sensational run, in which the schooner Margaret was constantly in sight, the Amorita crossed the line at 4.22 on the afternoon of June 8, having employed 78 hours 19 minutes and 15 seconds to sail 670 knots. Victory went to the Margaret, for her allowance brought her corrected time down to 76 hours 51 minutes 12 seconds, she having finished less than two minutes behind Amorita. The Crusader, too, saved her time, flashing across the committee boat's bow at 5.07.

The following figures give the time of the finish: Amorita, 4.22 P. M., June 8; Margaret, 4.24 P. M., June 8; Crusader II, 5.07.10 P. M., June 8; Restless, 3.35 P. M., June 11; Marchioness, 7.55 P. M., June 11.

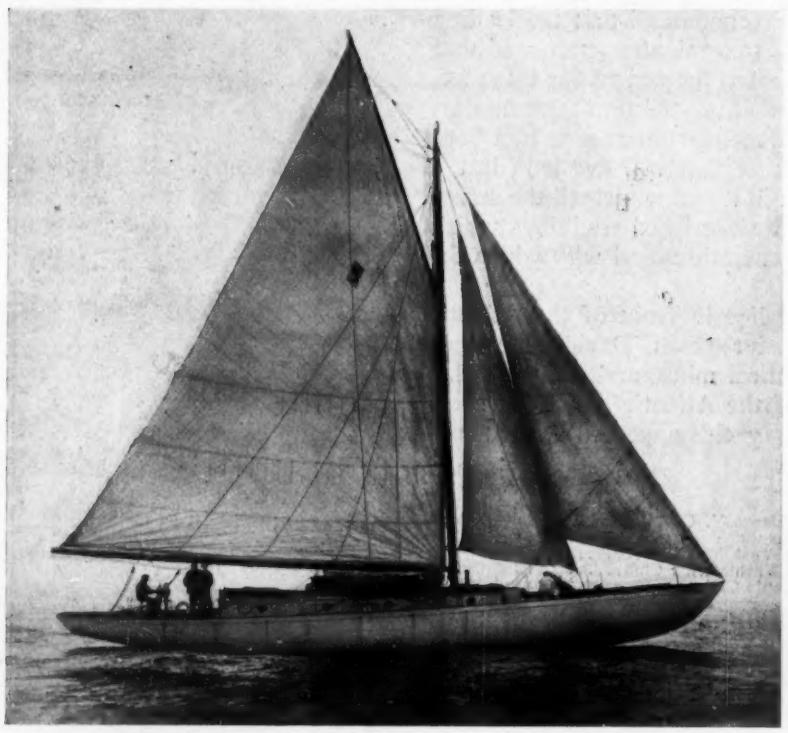
The mark set by the Amorita is 12 hours 6 minutes 15 seconds faster than the record established by the Dervish in 1907, and there does not seem much probability of its being bettered in a hurry. Conditions so favorable as to make a 90-foot schooner average 8½ knots for 78 consecutive hours are not encountered very often.

The race will long be remembered for its stirring finish. The three leading boats crossed within an hour of each other, and the two foremost ones were so close together during the last few miles that it was a question until the end which would finish first and secure the honor of breaking the record. The Amorita succeeded, but Margaret and Crusader took first and second prizes, so honors were well divided. The Margaret has to her credit the best 24-hour run of the trip with 257 knots.

And here ends the dry chronicle of events. The rest is an unofficial log of the Amorita as jotted down by the writer.

When Dr. W. L. Baum, of Chicago, decided a few weeks ago to enter in the Bermuda race his newly-acquired yacht, the Amorita, she was being overhauled at Greenport. Prompt and energetic action was necessary to have her ready in time, and Dr. Baum sought his colleague and sailing mate, Dr. W. W. Hoyt, the same "Bill" Hoyt who won the intercollegiate pole vault for Harvard a few years ago, and told him of his plight. Dr. "Bill" at once offered to get things in shape, and his executive ability certainly caused the eyes of many of us to open wide. He qualified as boss stevedore, steward, captain, crew, yard master and everything else, superintending the putting in commission and the provisioning of the boat with equal ease. When the Amorita swung from her moorings on June 5 not a thing had been forgotten or neglected.

There were twenty-six of us on board her, eleven Corinthians



MARCHIONESS. THE HEAVY SEAS RUINED HER CHANCES.

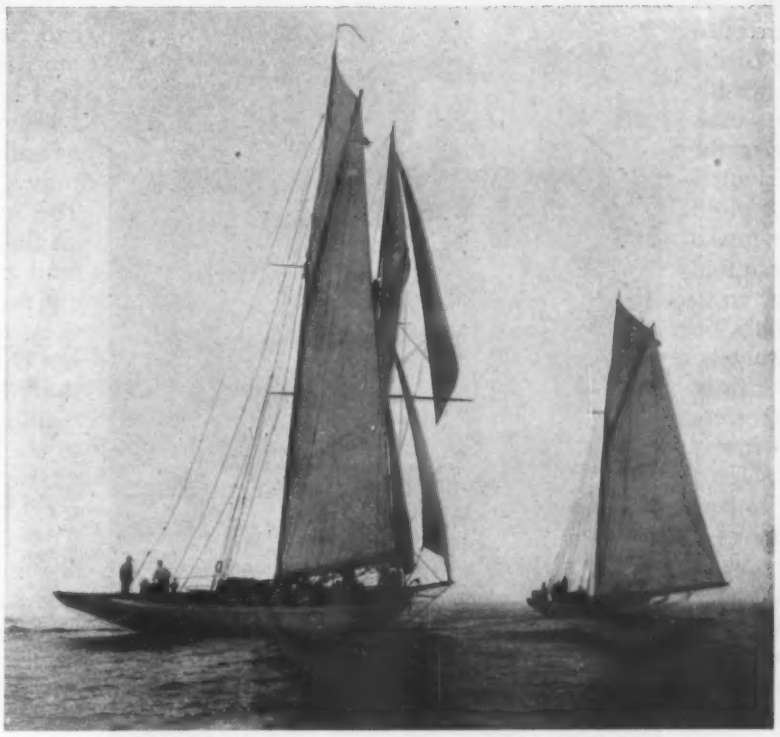
RESTLESS, THE SMALLEST OF THE ENTRIES.

AMORITA'S BOWSPRIT TEARING THROUGH A SEA.

AMORITA REELING OFF THE KNOTS.

and fifteen professionals, the latter including cook, steward and engineers for the 60-horsepower Craig auxiliary, which had been installed at Greenport. Of his after-guard Dr. Baum felt particularly and justly proud. For navigators he had H. C. McLeod, of Toronto, president of one of Canada's leading banks, and William Cooper, of Chicago. For crew, F. Tappan, of Toronto; N. Murray, Dr. Hoyt, Dr. Garret, E. C. Well, and the crack trio of lake sailors—Younglove, Springer and Weed — who raced the little 21-footer Chicago to victory in the 1908 contest for the Lipton Cup.

It was a jolly and congenial crowd of enthusiasts, who loved their work and were thoroughly competent. Not a man of the lot but could have taken charge of the schooner and sailed her down himself. Captain Bahr and Sailing Master George Lisberg were at first inclined to regard with condescension the "gentlemen sailors," the more so that some were fresh-water tars; but they changed their minds very soon when they found how able and tireless these amateurs were.



MARGARET, THE WINNER, FOLLOWING AMORITA DOWN THE BAY.

On the morning of the race we hoisted lower canvas at 9 o'clock, and by 9.30 we had weighed anchor and were headed for the line with No. 2 jib topsail in stops. McLeod was at the wheel, and he handled the boat in and out of the fleet with rare skill. When the starting gun boomed at 10 o'clock we had an excellent position, and crossed close on the heels of Crusader, with Margaret within a stone's throw. Margaret tried to blanket us off Channel Buoy No. 12, and, aided by a lucky puff, nearly succeeded; but we payed off a little and worked out from under her lee. Crusader was making the best of the light breeze and leaving us; but we ran up a fisherman's staysail, and, as we advanced toward the open sea, finding more breeze, we immediately began to regain the lost ground. At 11.15 we passed Romer Shoal Light.

Beyond, we ran into thick weather and better wind, and were soon bowling along with rail under water, tearing off 12 knots an hour and rapidly picking up the Crusader. When we rounded Scotland Lightship at 11.44 we had secured the lead, and took our departure for Bermuda.

Traveling along close-hauled after that, we held our own well as long as the breeze was with us; but during the afternoon it

DR. BAUM AND PART OF HIS CORINTHIAN CREW.

CLEANING UP THE DECK.

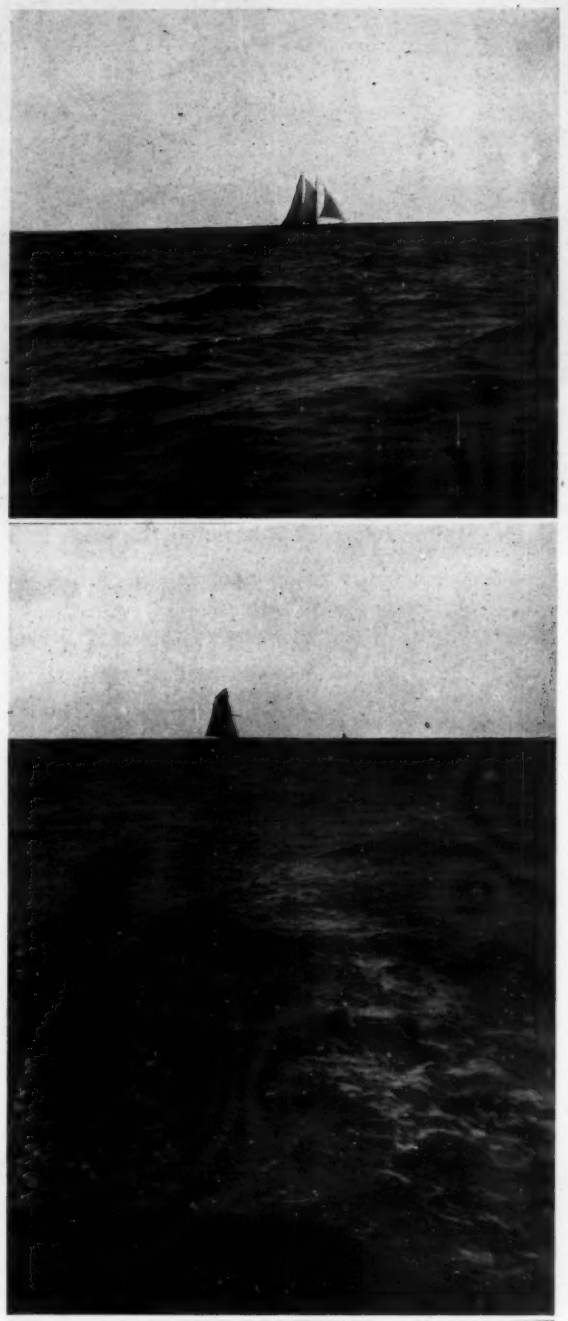
petered out, and then Crusader again shot ahead. By four o'clock she was hull down, and we had the Margaret about two miles astern. The Marchioness could just be made out at the horizon.

The rain had ceased and the fog lifted; but heavy, black clouds darkened the sky, and thunder was rumbling in the east. For a while it looked as if an ugly storm were forming, but the wind shifted and freshened and conditions improved. The sea was rising, however, and some of the men who were taking an ocean swell for the first time felt a bit squeamish, and showed it by their lack of appetite at dinner. But it did not dampen their spirits, and they soon became used to the new motion.

Night fell over an overcast sky. A dense mist enveloped us, and it drizzled in spasmodic spells. But the song of the wind was music to our ears, and we lay on deck in oilskins, listening to its tales and watching the water pour over the rail and sluice astern in foaming rivulets as we drank in the exhilaration of a night at sea. We set our first after-guard watch during the evening, and were told that thereafter we would be expected to observe forecastle rules—four hours on watch and four below, alternately. There was no wish to go below just then, however, for the log told us we were reeling off 10 knots an hour, and it was very pleasant on deck. "Doc" Hoyt was too old a hand to allow men to stay up when there was a chance to rest, though, and he used his winning ways successfully in coaxing the off watch to their bunks, even if they did grumble. It was to be very different later, when the novelty had worn off and hours of rope-pulling had made every muscle ache.

When the watches were changed at midnight we found that the sea had moderated considerably and was beginning to run with the course, helping instead of hindering us. The wind was still blowing merrily, and the boat was blustering along, now coasting down the watery hills with bowsprit buried and bow wallowing under water, now left rolling by them with nose high in the air and sinking stern washed by the waves, but ever careening toward her destination amid great showers of spray.

When the port watch relieved us, Springer went half-way up the mast with binoculars and picked up the Crusader, a couple of miles off our starboard bow. Later we made the Margaret astern. The rain had stopped falling for the time being, but heavy clouds hung low over the water, giving promise of more to come. The wind had freed,



MARGARET WITH BALLOONER SET.
MARGARET, AS SEEN FROM THE STERN OF THE AMORITA AT THE FINISH.
A BIT OF THE BERMUDA SHORE LINE.

and the course was changed to E. by S. ¼ S. At 8 o'clock Captain Bahr and Cooper came on deck, and the latter took the sun for longitude.

Meanwhile, the rising breeze was putting a heavy strain on halyards, and some were chafed thin by the rolling and tossing. That of the fisherman's staysail parted suddenly with a sharp report, and down came tumbling the great piece of canvas like the rattle of musketry. The crew jumped for it as one man, and it was soon safe on deck. Then an acrobatic Swede hauled himself up the mast and reeved the halyard through again and we were ready to reset it; but the mate thought we had better wait a while, and we put it in stops.

By noon the temperature of the water had risen markedly, telling of our proximity to the Gulf Stream. The wind kept on freshening, and we noticed that a heavy coasting schooner which passed us sailing on the wind carried but two heavy trysails and a single headsail. The Amorita was under full main, fore, staysail, jib and jib topsail. Bent over until several feet of shrouds were splashing through the water, she was making great time of it, her shapely sides throwing out huge waves of spray, her bow shoveling up big chunks of green water that came tumbling astern, drenching us to the knees.

The topsail seemed to be too much for her, and Dr. Baum ordered it down. Two of the sailors sprang out on the diving bowsprit and a couple of Corinthians stood by to pass the sail in. Driven at a speed of some 13 knots, the boat would race madly down a wave, which crashed with awful force over the clinging men. There seemed every probability of the impact sweeping them off; in fact, it was hardly conceivable that they could hold on, but they thought nothing of the task.

The wind had reached half a gale by the time the jib was stowed, and it became evident that it was sheer madness to continue with the smothering canvas we were carrying. The old Amorita was plunging so that there was no standing without support, and the seas that smashed first over the bow and then over the stern made it unsafe to move about. The order to reef mainsail did not come unexpectedly, therefore, and little time was lost in carrying it out. This eased our going, and the four-course dinner which cook had prepared for us was eaten without too much inconvenience.

We had been gaining steadily on the Crusader since the wind had increased,

(Continued on page 76.)

SUNSET ON BISCAYNE BAY NEAR MIAMI.

WHERE THE TRADE WIND CLOUDS DRIFT OVER THE GULF.

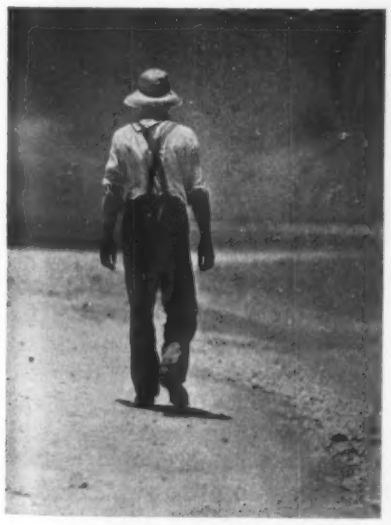
The Cruise of the Kids

By A. W. DIMOCK

Illustrated by Julian A. Dimick

NOT that they were really, truly kids; but they were so refreshingly fresh in matters marine that they seemed llike kids to an old cruising salt like me.

There was the Jerseyite, a *wanderlust* sprite, whom we naturally christened "The Hobo"; the professional gentleman from the metropolis, who cranked the motor with an automobile air, wore stunning shirts, and was known as the "Dude Engineer"; and the daughter of the house, who chaperoned the other girl, read Dante aloud to us, and was usually addressed as "Dago."



"THE COOK AND THE CAPTAIN BOLD."

The Scribe and the Camera-Man didn't count, because Florida was an old story to them; they were immune to its tropical sun, and familiar with its flora and its fauna, its coquetries of climate, its capricious clouds, swirling in inky grandeur for an hour, then filling the western sky with gorgeous masses of many colors, and its torrential downpours, alternating with hours of dazzling light.

"The cook and the captain bold" was a young cracker who was born with a map of the west coast of Florida on his brain. He could find his way among its mangrove keys, through its intricate channels and around its oyster bars and coral reefs in his sleep, and, withal, could run a kerosine stove with as little profanity as was self-respectful.

The cruise began when we embarked on the Irene at Fort Myers, Florida, early in June. The boat was a converted sloop, in which a motor had been installed and the cabin extended until the craft possessed many of the conveniences and a few of the drawbacks of a houseboat. To the young yachtsman, bursting with nautical etiquette, the cruise would have been a nightmare. The kids were always running "down stairs" or "going up on the roof," and whenever the bell of the ship's clock struck the hour they sat down with pads and pencils to figure out the time. As we sailed down the river the girls sat on the cabin top in the lee of the close-hauled mainsail, and when a favorable slant of wind permitted loosening of the sheet and the freed boom drove them from their shaded nook they made formal complaint of the skipper and insisted on having the sail put back.

From bank to bank the Caloosahatchee was covered with masses of water hyacinth floating out with the ebbing tide to a salt-water death. The purple blossoms of the flowers made of the river a broad field of loveliness; but in the narrow places its wind-driven masses checked our progress, while the skipper anathematized the beautiful growth and the Dude Engineer raved deplorably over a choked propeller that checked the working of the motor. The wind died out, and for an hour we drifted in fairyland, when a strong wind sprang out of the south, swept the hyacinths from our path, and we resumed our cruise.

As the daylight faded and the stars came out our wake became a blaze of phosphorescence, every foam-tipped wave in the broad sea about us sent forth beams of blueish light, the trail of each darting fish was traced in fire and every wriggle of his tail marked with streaks of light. A dolphin, striking a school of mullet near us and sending many of the smaller fish flying through the air, was like the bursting of a pyrotechnic bomb. A swiftly-moving launch, as it passed us on its way to Fort Myers, seemed like some weird monster. When, on the approach of night, the first faint phosphorescent gleam had tinged the surface of the river, the Hobo shouted her delight, and even the Dago expressed approbation. But this was only the prelude. When all the stops had been pulled out, the real exhibition was received with an intensity of silence which could be felt. As we held our tortuous course among the oyster bars that threaten near the mouth of the river, I was glad that our pilot was less sensitive to the loveliness of the fiery display.

We anchored eighteen miles from the railroad terminus at Fort

Myers, near the mouth of the Caloosahatchee and abreast of Punta Rassa, while before us winked the revolving light of Sanibel, and beside us gleamed steadily the range light, beyond which opened the inland waters of Pine Island Sound and Charlotte Harbor.

Curtains and the centerboard case gave privacy to the girls, who rejoiced in high bunks on a level with windows which caught the breeze as it came over the bow. But the breeze was light, the tide strong, and when the latter turned at midnight, swinging the stern of the boat to the wind, there were cries of distress from the cabin of the girl kids.

"Not a breath of air, and hot as hot!"

"I shall die if I don't get out!"

The Dude and the Camera-Man had camped on deck under mosquito bars, and, cooled by breezes from the Gulf, were sleeping the sleep of the unjust. There was an area of low barometer when I awakened them, but they made cheerful exchange of quarters with the suffering young women.

Thereafter the Dude and the Camera-Man took to the bunks below, while the girls slept on deck, until one night when a rain-squall drenched them both before they could scramble from beneath their bars and get down into the cabin. There was another midnight swap, and the boys slept on the floor the rest of the night; but it was announced at breakfast that thereafter quarters were to be chosen for the whole night, rain or shine. The girls fought out one shower on deck, but thereafter bunked below, while the Dude and the Camera-Man slept sweetly under the stars, or dammed the floods—with rubber blankets—as best they could. There was no more complaint at night from the girls, although the Hobo was once heard to remark, in a tragical voice:

"There's a spider in here as big as a dinner plate!"

The brightness of our first morning in Pine Island Sound was dimmed by an ominous cloud in the east, which killed the westerly breeze and soon spread over the horizon. When the wall of falling water which accompanied a heavy squall reached us, anchors were down and everything snug, while the kids stood by in half-fearful anticipation. Pine Island Sound is all harbor, and we rolled pleasantly to the waves for an hour or two, when the clouds melted like magic, the sun came out refulgent, and the west wind resumed business at the old stand, regardless of the interregnum, and we continued on our course.

At dusk we dropped anchor for several days at Captiva Pass, an 18-mile sail up Pine Island Sound from Punta Rassa. There is safe anchorage beside the pass, the beach outside is rich in shells, and the beach-combing kids spent happy days in gathering treasures of the sea and bathing in its waters. Piles of shells accumulated on cabin and deck, tiny specimens were pinned to the sails or tied to the shrouds, and I saw the skipper gazing ruefully at a bunch of curios which had been neatly tied up by means of the peak halyards. Happily, a heavy blow one day swept the decks of everything that wasn't nailed down, and thenceforth the kids kept their collections in boxes under their bunks.

A day's work with a tarpon rod by the Dude Engineer was rewarded by the capture of a silver king, and thereafter his hat was decorated with a shining scale as large as the palm of his hand.

When the Hobo caught sight of the big, glistening emblem of prowess, she straightway declared that she, too, was going to wear one of those trophies, and wanted to know who was going to take her out fishing.

"I won't wait until to-morrow!" she exclaimed in reply to my suggestion that squall-clouds and an out-going mill-race tide made a bad combination.

"I want to go right now, and if you're afraid I'll get the cook to go."

WITH THE APPROACH OF A HEAVY SQUALL THE ANCHORS WENT DOWN AND THE SAILS WERE TIED UP.

There was no room for further discussion, and soon the girl was seated on the bottom of a canoe which the Camera-Man and I were paddling out into the pass. From the big tarpon rod in her hands there trolled a seductive slice of fresh mullet, which I secretly hoped no tarpon would find, since a heavy bank of oncoming clouds gave promise of all needful excitement. For a time these clouds coquetted with us. Then a wild wind came out of the west, meeting the out-going tide, changing its waves into big-crested rollers, and keeping two of us busy holding the bow of the canoe against the breaking water. Quickly as the wind rose it died out, killed by a rain-squall from the east, which brought upon us a solid wall of water. For five minutes we could not see a hundred yards, and the water in the canoe rose as we watched it. The Hobo asked if she could sit on one of the thwarts, as the bottom of the canoe was a pond, and looked reproachfully at us when told that the canoe was too cranky and she was needed for ballast where she was. Squalls and showers are short-lived in the Gulf of Mexico, but when the sun came out there were a thousand yards of rough water and adverse wind between us and the shore for which we were headed.

"What are you going that way for? Why don't you go back to the Irene? I'm wet as a sponge!" said the Hobo.

"Can't get through the pass till the tide changes," answered the Camera-Man, with hypocritical regret in his voice.

"When will that be?" came from the wet-as-a-sponge girl.

"It ought to turn by six o'clock; but the wind may have put it out of its reckoning, and there is no telling when it will begin to run in."

"I'm not going to stay here till after six o'clock to-night," said the girl.

"When we get ashore we can walk around on the beach to the inside of the pass, where they may see us from the Irene and send the motor boat to us."

"Why don't they come out here for us?"

"Because the little motor boat wouldn't be safe in these waves and couldn't tow us against this tide," replied the-man-who-was-enjoying-it-all.

We carried the canoe through the surf, pulled it up on the beach and tramped around to the inner shore, where we were seen, and the little boat picked us up.

"What for did you take me out in that pass, in such a tide, with a squall coming up?" the Hobo fired at me as she stepped on the deck of the big boat.

"Oh, you wanted to go, you know; and, anyhow, you needed the lesson!" I replied, and dodged a very wet cushion.

We sailed north from Captiva six miles to Boca Grande, the big pass; but its deep, wide waters looked too boisterous for comfort, and we kept on for another six miles to Gasparilla Pass. Here we anchored beside the pass, separated from the Gulf by a low, narrow island of sand fringed by a fascinating shell beach. The Dago and the Hobo came in from an early morning stroll on the beach with excited accounts of the trail of a sea serpent which they had found leading from the water. The Dude and the Camera-Man returned with them, and a few minutes' digging at the end of the yard-wide trail disclosed half a bushel of turtle eggs. It required persuasion to induce the kids to sample the uncooked eggs. It is only the first step that costs, and a few minutes later the Hobo exclaimed to the Dude, as she saw him gazing at the pile of parchment shells: "If you ever tell any of my folks about my sucking eggs, I'll never, never speak to you again!"

"FROM THE HEAD OF ROGERS TO THE BEGINNING OF BROAD RIVER IS A COMPASS COURSE OF SOME FIVE MILES."

Our stay at Gasparilla was shortened by the enterprise of the girl kids. They had criticised the cuisine and rebelled at the limited rinsings of the dishes and the lack of polish of the glassware. Taking advantage of the absence of the rest of us one day, they revelled in plenty of hot water, lots of rinsing, a riot of scrubbing and a carnival of cleanliness. The cook returned to an immaculate galley and tanks empty of water. Three days of bathing in salt water, while we were exploiting exhausted public and private tanks, barely finding fresh water enough for drinking and cooking, quite cured the kids of their housewifely fever, and thereafter a lack of sparkle in the tumblers failed to call forth comments. Finally Uncle Sam came to our relief from his store of rain-water at Boca Grande, and we filled our tanks at the lighthouse pier, while the swell from the Gulf knocked the rail off of our boat.

Twenty-five miles through Charlotte Harbor and Pine Island Sound brought us to Punta Rassa and the Gulf. For nearly forty years the village of Punta Rassa has consisted of one house, one citizen and his little family. He has been the Pooh Bah of the country—cable and telegraph operator, express and steamship agent, and has held all the offices—Federal, State and County—that pertained to his district. Last year his ancient habitation burned to the ground, and he had replaced it with a hotel for sportsmen and their families. Down the Florida coast, where the light from Sanibel sinks to the horizon, is Carlos Pass, the attractive entrance to beautiful Estero Bay, which, unhappily, has been pre-empted by the Koreshan Unity, an association of lunatics. As I explained to the kids, I didn't care to contribute to its membership, and the Irene carried them by, without giving them a chance to land. The wind blew strongly toward the shore as we passed Naples, that queerly protected town, whose only defense against storms on the Gulf is a long, slender pier running straight out from the shore. The kids, who always wanted the wrong, clamored to stop, until they were told that nothing short of a breeches buoy would land them in safety.

That night we anchored at Colliers, which is called Marco on the chart, but from time immemorial has been known to the coast as "Cap'n Bill's." From Colliers to Coon Key the course is behind islands, and the Dago stood at the wheel, while the other kids watched the banks for wading birds and the water for turtles. The Hobo shouted at sight of an alligator swimming near the bank, and the Dago dropped the wheel to get a better view. The Captain chanced to have gone below for an instant, and the Irene promptly ran into the mangrove bushes, which were burdened with their strange fruit of living oysters. The Camera-Man cut off a small branch, which bore a bunch of about twenty pounds of oysters, and was kept busy for an hour opening the bivalves for the lunch of the girl kids.

As the anchor of the Irene dropped at noon into the soft mud behind Pavillion Key, the Camera-Man, who knew the country, shouted: "All hands on deck to tread clams!"

The Hobo reported promptly, and asked:

"What do I wear, and will I get wet?"

"A bathing suit for propriety, and you will get wet, sure Mike!" responded the master of ceremonies.

"How do I know when it's a clam?" came a little later from the half-submerged girl, who was hanging on to a skiff with two hands and trying to find the bottom with both feet.

"Wriggle your toes down into the mud, and when you feel a small, round rock, it's a clam," replied the instructor.

"But how do I get it up?"

"Dive for it like this!" and the method was illustrated by the Camera-Man, who triumphantly brought to the surface—an ancient clamshell.

The Dude Engineer covered himself with glory by unearthing six clams. The Hobo finally found one, and the rest of us raised the find to a baker's dozen. It was the native who supplied the larder, for he gathered clams as a chicken picks up corn, and in half an hour the skiff was loaded with enough for a politician's clam-roast. Clams raw and roasted on the half-shell, clams fried, clam soup and stewed clams burdened the table for days thereafter, until the Dago said she felt like a work on conchology.

As we sailed down the coast south of Pavillion Key the Hobo became an interrogation point:

"Is that a river?"

"Yes, that's Lossman River."

"Why don't we stop there?"

"Because we're not stuck on oyster bars and don't want to be," replied the frivolous Camera-Man.

"Who are those people standing in the water?"

"Those are big blue heron, not people. They always fish there at low tide."

"What are those pretty islands?"

"They mark the mouth of Broad and Rogers Rivers. We will stop there."

"Then why are we sailing past them?"

"Because the channel lies on the south side of the rivers. It usually does on this coast."

We anchored the Irene behind a big shoal that shelters from storms the mouth of the river, and the Camera-Man and I took the kids up Rogers River in the motor boat. The Dago enthused over the trees on the banks—great royal palms, tall, slim palmettoes, date palms, tamarind trees, and a cannibal fig that was slowly swallowing a palmetto—while the Hobo demanded the history of the deserted plantations, the ruins of which we visited.

"Have the inhabitants all gone?" she asked.

"Oh, no! they mostly staid on the place," the Camera-Man assured her, and cheerfully pointed out an overgrown grave beside which she was standing.

From the head of Rogers to the beginning of Broad River is a compass course of some five miles, which was probably seven as we made it. We motored down Broad River with a favoring tide, and at twilight were sitting on the cabin of the Irene cooled by a brisk breeze from the Gulf, while we watched the gathering of pelicans on the trees nearby and flocks of belated ibis hurrying to a rookery which lay somewhere to the north of us.

Before daylight the Dude had the motor chug-chugging, and it was barely dawn when we entered Tarney River, three miles down the coast from our anchorage. Our early start was made to catch the tide, which was to help us up the river. The girls took their breakfast on deck, which they never left until noon, when the bow of the Irene rested against the grass of the Glades at the head of the river. On the way the Dago exclaimed over the beauties of Tussock Bay, and insisted on landing at the old Indian camp, until, to save time, I threatened her with red bugs which were wholly imaginary, but proved efficacious. The Hobo was inquisitive about a man in a skiff whom we met in a narrow creek, whose face we failed to see.

"Who is that?" she asked.

(Continued on page 68.)

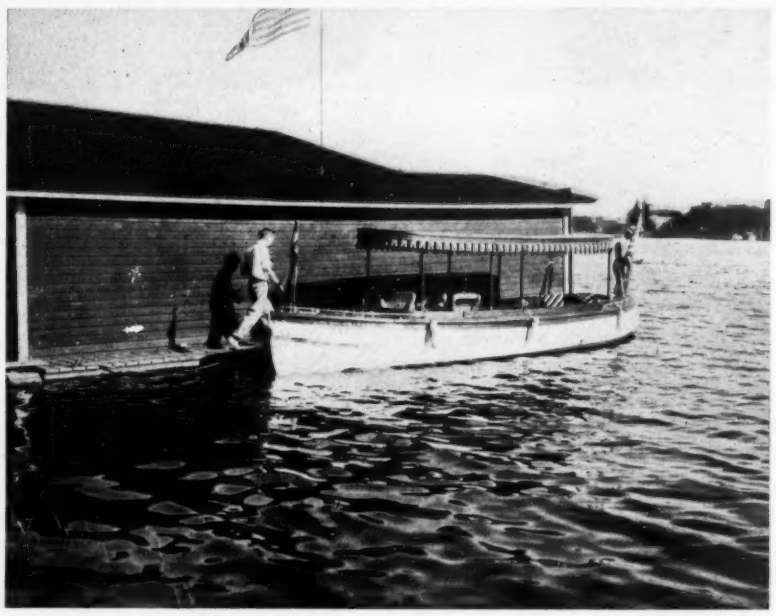
Cruising in His Majesty's Dominions

THE CHARM OF THE RIDEAU CHAIN PRACTICALLY UNKNOWN TO AMERICAN MOTOR BOAT MEN—DIRECTIONS FOR GETTING THERE AND THE KIND OF AN OUTFIT NECESSARY FOR THE CRUISE

By HAROLD WHITING SLAUSON

Photographs by the Author

IF variety is the spice of life, ever-changing scenery and the constant wonder of "what's coming next" should certainly form the keynote to a successful and pleasant motor boat cruise. Vast stretches of open water become monotonous; continued chugging through a long canal too closely resembles a railroad ride in which land scenery plays a more prominent part than should be expected in a water cruise, and the long waits for drawbridge and lock tenders become annoying. The ideal cruise to most people consists in a combination of inland waterways and open stretches in such proportion that the senses do not become dulled by the monotony or tired by the variety of the trip. Such a route may be found on the most unique of North American waterways — the Rideau chain of lakes and canals in Lower Ontario, Canada. Here open stretches of water give way to picturesque canals with massive granite locks; narrow and tortuous streams suddenly open into beautiful lakes dotted here and there with small islands; these, in turn, are replaced by flooded lowlands—areas miles in width through which twists and turns a 50-foot channel; thriving cities and towns or gay summer resorts follow closely upon vast, uninhabited tracts of primeval forest; and over and above and pervading all is the wonderful, invigorating, pine-laden air of the north woods.



GETTING READY FOR THE START. THE 27-FOOT, 12-HORSEPOWER BOAT IN WHICH THE CRUISE WAS TAKEN.

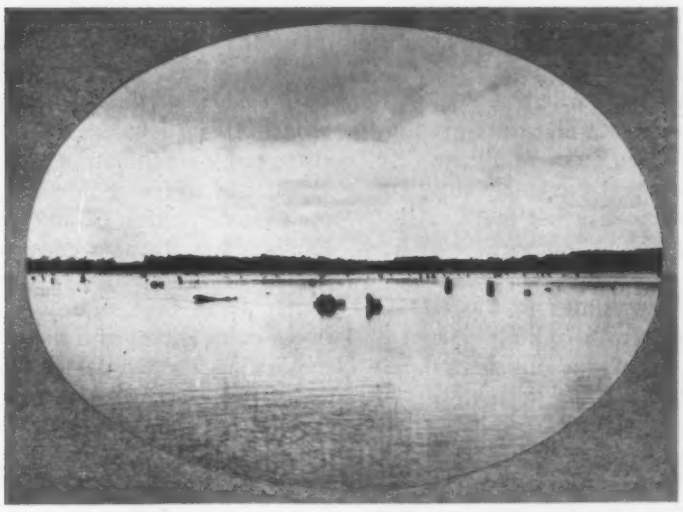
Although the beginning of this Canadian inland waterway is at Kingston, Ontario, the gateway to the famous Thousand Islands, a person who has cruised on the St. Lawrence will find the scenery and conditions of a trip up the Rideau so totally different that it may be difficult for him to realize that he is but a few miles from the borderline between this country and our northern neighbor. Originally a series of lakes connected by small, unnavigable streams, the Rideau is the culmination of the endeavor, during the War of 1812, to construct a commercial inland waterway for the safe transportation of grain and other supplies from the Great Lakes to Montreal by way of Ottawa and the Ottawa River without the danger of coming near the borders of a hostile country. To accomplish this the streams were widened and

deepened, dams and locks built and the chain of lakes connected by canals capable of accommodating vessels 110 feet in length by 30 feet beam and 6 feet draught, the result being a navigable waterway nearly 200 miles in length, consisting of alternate canals, lakes and streams extending from Kingston to the capital of the Dominion. That the canals were built during a time of international strife is evidenced by the appearance of block houses at frequent intervals, constructed of the same massive granite blocks as are the locks, and now occupied as dwellings by the lock masters.

CHAFFEE'S LOCK, WHERE THE WOODED BANKS OVERHANG THE NARROW CHANNEL.
THE NARROW CANAL LEADING TO SMITH'S FALLS.

So much for the history and topography of the Rideau. From the foregoing it may be imagined that bases of supplies are none too frequent, and that a party starting on a cruise through this waterway will do well to be prepared with a goodly stock of provisions, gasolene and other necessities for man and boat which cannot be obtained in the wilderness or in provincial towns. In case no accident or delay occurs it is quite probable that each summer resort or small town along the Rideau may be reached at the end of an easy day's cruise; but as these stations are separated by distances of 30, 40 or 50 miles, and a breakdown may occur while far away from a base of supplies, at least two days' rations should be carried along. The experiences which the writer gleaned on a cruise up the Rideau to Smith's Falls—lying about half-way between Kingston and Ottawa—may be of benefit to others about to take a similar trip through this section of Canada.

There were five of us who made up the crew of our craft—a canopy-top, 27-foot motor boat, driven by a 12-horsepower engine—and, including stops at several places to fish for bass, with which these lakes abound, ten days were occupied on the cruise. Comfortable sleeping quarters were arranged for those of the party who preferred the boat to the accommodations offered by the small hotels which we managed to reach at the end of each day's cruise; and runs were made in all kinds of weather, as the canopy top was provided with watertight curtains, which could be fastened down when the necessity arose.



THE RIVER STYX, WHERE THE PARTLY-SUBMERGED STUMPS MAKE NAVIGATION DANGEROUS.

Years of familiarity with the clear waters of the St. Lawrence, its deep and well-buoyed channels and its narrow passages, completely sounded and charted by the Government, had led us to be rather skeptical in regard to the necessity of a pilot on the Rideau trip. But the advice of friends and old rivermen was finally heeded, and a pilot was added to our stock of cruising necessities. Although constituting the fifth man of the party, Captain Kinney proved of such invaluable aid in piloting the boat through different channels and in putting his experience and knowledge to such good use at the locks that the writer now considers a pilot to be of only secondary importance to the boat in such a trip as this. It must be remembered that the Rideau water is not clear, and that in consequence dangerous shoals and ugly stumps cannot be seen, even though submerged but a few inches below the surface; and the first indication of the proximity of the bottom to the top of the stream will be the much-dreaded thump and click, followed by the speeding up of the engine, indicating that the wheel has lost a bucket. The hand of man has added to the provisions of nature in providing pitfalls for the unwary motor boat, and sawed-off stumps and snags must be reckoned with, as well as rocks, shoals and sand bars.

These dangerous stumps are the remains of trees which have been cut down when the necessary erection of a dam for a lock caused the surrounding country to be flooded. A channel is dug through these stumps; but as it is seldom more than 50 feet wide, and, to the uninitiated, practically unmarked, it is a risky proceeding to endeavor to pilot a boat alone through this denuded forest land. The worst stretch of drowned lands extends for about ten miles back of Kingston Mills—a distance of eight miles from Kingston City—and is appropriately named the River Styx. Bushes are tied to some of the stumps which project out of the water, and are used as channel markers; but as these constantly indicate first one side and then the other of the deeper waterway, they will tend to add to, rather than decrease, the confusion of any but an experienced pilot. The appearance of a motor boat crawling along at a snail's pace with a figurehead in the form of a member of its crew stretched far out over the bow and peering

THE ST.LAWRENCE NEAR KINGSTON.
THE CANALS OPEN INTO LAKES DOTTED WITH ISLANDS.
KINGSTON, ONT., WHERE THE RIDEAU ENTERS THE ST. LAWRENCE.

down into the muddy waters for signs of shoals or stumps is no uncommon sight, and indicates that this party has tried to dispense with the services of a pilot; but sooner or later the propeller is almost certain to come to grief, even though the utmost precautions may have been taken.

In addition to the opaque waters and hidden shoals, sand bars and stumps, the entrances to many of the canals connecting one lake with the next are so well hidden that a person unfamiliar with the route may cruise around for hours without seeing the vestige of an outlet from the seemingly land-locked shores of the body of water. This emphasizes the necessity for taking a pilot on the trip, especially if it is desired to make good time. It may be possible to dispense with one by following one of the larger passenger steamers, or some other cruising craft, through the intricate waterways; but as such boats will probably gain fifteen or twenty minutes at a lock, and in that interval some of the worst spots may be encountered, this is hardly a safe or satisfactory procedure.

We found that the price of gasolene advanced as we penetrated the interior of the Province. From $.15 a gallon in the "States" it had jumped to $.25 at Kingston, on the other side of the St. Lawrence, and then soared to $.35 at Jones' Falls, 35 miles from the beginning of the Rideau. At this rate, we hardly dared inquire the price at Smith's Falls, which was the turning point of our trip, and which lies about 85 miles from Kingston, so it will be seen that it pays to take along enough of the precious fuel to last until a station is reached where the prices come down to earth. Of course, these Canadian prices should be discounted somewhat, as the Imperial gallon in use in the Dominion is a fifth larger than that employed on this side of the border.

It should not be inferred from the above that all prices are high in this section of the country, for such is far from being the case. Canned goods and fresh food supplies were extremely low, and all indications seemed to point to the fact that it cost more to feed the motor in this region than it did to satisfy the appetites of five hungry men.

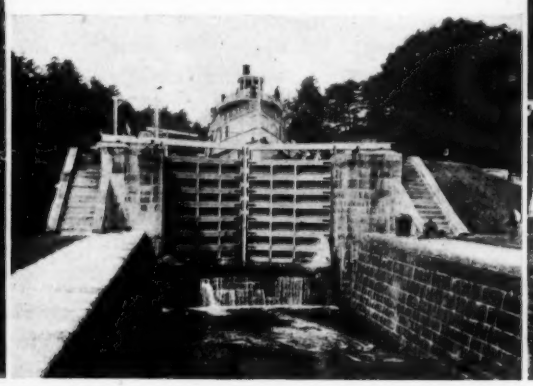
The muddy and brackish nature of the water in the Rideau lakes and canals renders it totally unfit for drinking purposes, and provision should consequently be made for a sufficient supply to be taken along to last from one day to the other, although good well water can probably be obtained from the lock tenders at the locks through which the boat will pass.

There are thirty-two of these locks between Kingston and Ottawa, and under the best of conditions about fifteen minutes should be allowed for the passage of each. The first, and probably most picturesque, group of locks is located at Kingston Mills, at which place we arrived after about an hour's run from Kingston. This group consists of four separate locks, raised in steps one above the other, and a large "basin," of heavy masonry. The total lift of the four locks is about 60 feet, and on reaching the top a fine view may be had looking down and back over the winding waterway through which the boat has come during the previous hour.

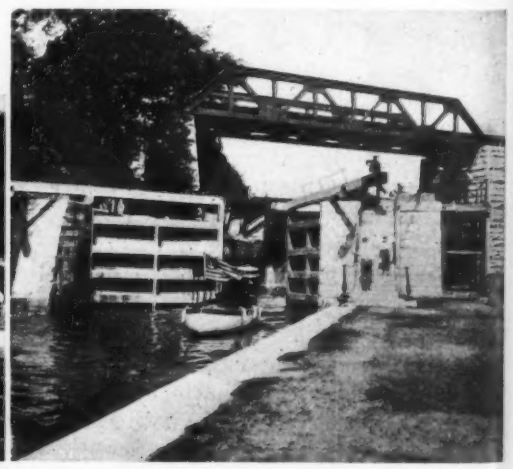
The section of the canal from Kingston to Kingston Mills is typical of many parts of the Rideau, and gives the cruiser a fair sample of what is in store for him. From the time the boat enters Cataraqui Creek—which flows into the St. Lawrence at Kingston and forms the beginning of the Rideau—until the locks at Kingston Mills appear, the pilot is making all sorts of sudden and unexpected turns to keep out of the thick weeds which line the channel on both sides. At "The Basket" the turn is so sharp and the channel so narrow that it hardly seems possible that steamers of 30 feet beam can negotiate this waterway, and yet there is a regular line of boats of this size running through this section on their way from Kingston to Ottawa every day, and sometimes at night. After a few miles of travel through these lowlands the canal enters a deep cut, in which the sides rise to an imposing height on either hand. A couple of miles of twists and turns through this gorge brings us to the first lock.

The contrast between the novelty and beauty of the canal and scenery before Kingston Mills is reached and the desolate, barren effect of the ten miles of the River Styx subsequent to the passage of the locks is anything but pleasing. "The other side," however, after the passage of this famed river, is just about the antithesis of what the pictures of Doré and the stories of the mythologists would lead us to expect; and the succeeding twenty miles of canal, lake and river, interspersed with a lock or two, instead of being a hideous Hades, is more nearly a picturesque paradise. At the end of this twenty miles—or thirty miles from Kingston—is located the small settlement of Jones' Falls, consisting of a combination post office and general store, a hotel, four locks, and a few guides and fishermen. This being practically the first habitation of any kind which will be found after leaving Kingston, it forms a convenient stopping place for people cruising here, and completes the first stage of the trip. It must be remembered that, although thirty miles is by no means a great distance to travel in a motor boat in a single day, a speed of not more than eight miles per hour can be maintained in the canals, no matter how great the power the craft may possess, and that the minutes consumed by the locks and other delays will probably extend the time required to cruise from Kingston to Jones' Falls to six or seven hours. The lift of the four locks at Jones' Falls is greater than that of any series of the same number along the entire Rideau, and the immense 90-foot dam of granite blocks which has converted the original waterfall into a navigable stream is well worth seeing. The gem of the whole Rideau cruise is probably the twelve miles between Jones' Falls and Chaffee's Lock. The two lakes and connecting canals are the most beau-

ONE OF THE LOCKS AT KINGSTON MILLS LOOKING BACK OVER THE CANAL TOWARDS KINGSTON.



ONE OF THE OTTAWA STEAMERS COMING THROUGH THE LOCK AT JONES' FALLS.



ENTERING THE LAST OF THE FOUR LOCKS AT KINGSTON MILLS.

tiful of the whole series, and a person has not seen the Rideau until he has traveled through this short section in daylight.

The final stage of our cruise was made from Chaffee's Lock to Smith's Falls. This section includes the Little and Big Rideau Lakes—the latter the largest of the entire chain—and forms a varied and interesting route. The final stretch of six or eight miles to Smith's Falls is made through a canal which proved to be narrower and more tortuous than any of the whole trip. The Little Rideau Lake is the last of the chain, and from Smith's Falls on to Ottawa the trip is made entirely through artificial canals. Consequently, unless the capital of the Dominion is the objective point, Smith's Falls will form a convenient turning point for a cruise of this nature, although by going on to Ottawa one can get into the Ottawa River and come down that to the St-Lawrence at Montreal.

Every small boat taking this Rideau trip should carry along a couple of extra propellers, or several additional blades, if the wheel is of the reversible variety. Even though the boat is piloted by a man of ability and experience in these waters, half-submerged logs will often float down the main channels; and as it is exceedingly difficult to detect these in the dark waters, as much havoc may be wrought to the propeller as though the boat had passed over a shoal. It is also a good idea to take along a block and tackle or a differential pulley capable of raising the entire stern of the boat out of water. In case it becomes necessary to replace a broken wheel, the pulley may be fastened to a drawbridge—one of which crosses the canal in the vicinity of nearly every lock—and the propeller thus rendered accessible. It must be remembered that all repairs will have to be improvised and managed by the crew of the boat, for no machine shop or other facilities will be found along the Rideau between Kingston and Smith's Falls.

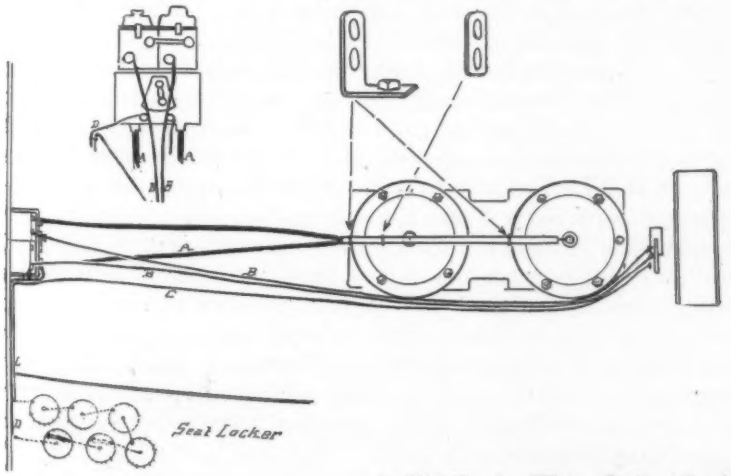
If the trip is to be made before the latter part of August and it is intended to use the boat for sleeping quarters, an abundance of mosquito netting should be included among the necessary supplies for the cruise. During the middle of the summer the Rideau is almost as famous for its mosquitoes as it is for its bass; but the troublesome insects seem to disappear almost entirely about two weeks before the beginning of September, while the fishing remains good until freezing weather sets in.

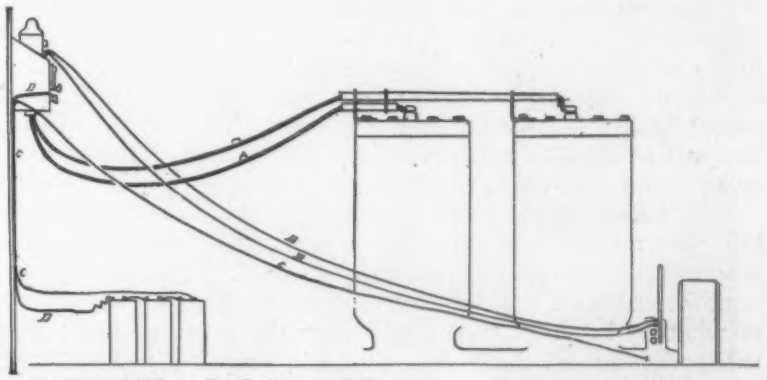
The Rideau chain of lakes and canals is under the control of the Canadian Government, and the lock tenders will be found on duty at all hours of the day and night, except between 6 A. M. and 9 P.M. on Sundays. The use of the locks and canals is free to all pleasure boats, the only formality required from craft registered outside of Canada being the presentation of a pass at each lock, giving the name of the captain or owner, the size of the boat, its business, and the number in the party. This pass can be obtained upon application at the first lock reached on the trip, and is not surrendered until the cruise is finished. In all instances the lock tenders were found to be most courteous and obliging in every respect.

A Compact Wiring Arrangement

DID you ever make a trip as guest aboard a power boat whose wiring system resembled the mass of snarls that a man brings up on a fishing bank steamer when he crosses the lines of a dozen fellow anglers? The skipper who is responsible for the layout which is here described has experienced sensations of this kind in other people's boats, and made up his mind to get as far away from them as possible.

To start with, the arrangement of the boat lent itself admirably





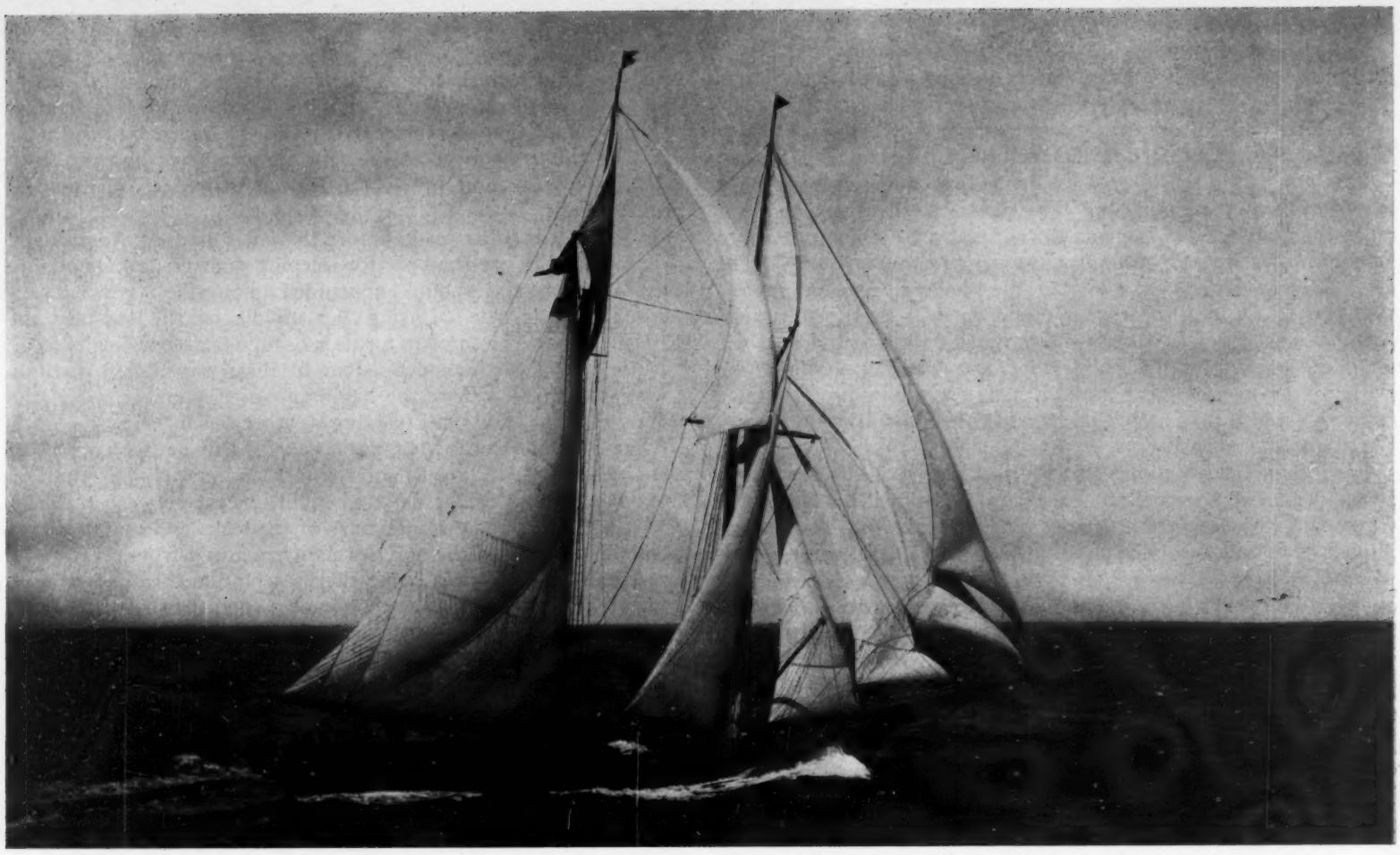
A—High-Tension Wires. B—Low-Tension Wires. C—Ground Wire. D—Battery to Coil.

to his scheme. Directly aft of the engine, and about 15 inches from it, was a 'thwartship bulkhead, on the upper panel of which the coils were mounted. These coils had waterproof coverings over the vibrators and were slipped into a casing box, on the front of which was a three-point switch. If the boat is to be laid up for any length of time, the disconnection of the wires would allow the removal of the coils.

By placing the coils on the bulkhead instead of under the locker, it was possible to bring the high-tension wiring right to the spark plugs in a line over the shaft. To keep this secondary wire from the cylinder heads, two brackets of ⅛-inch brass were cut out with a hack-saw, bent in a vise and bored, the bases to take the cylinder-head bolts and the uprights to fit snugly around fibre tubes which surround the high-tension wires and prevented any chance of short circuiting in wet weather by way of the brass brackets.

One fibre tube reached from the after edge of the cylinder to a point just opposite the spark plug. This was the lower tubing. The upper wire was carried in a tube which extended from the after end of the after cylinder head to a point opposite the spark plug on the forward cylinder. One of the two brass brackets was placed on the after end of the after cylinder and the other on the after end of the forward cylinder, and a little brace of brass assisted in holding the two tubes together.

To prevent any wiring crossing the passageway between the engine and the locker under which the waterproof battery box was kept, the primary wiring was carried up through the locker seat close to the bulkhead, to which it was fastened by porcelain cleats, as shown in the diagram, both wires being carried over to a cleat right alongside the coils. From this cleat one wire was carried to the coil and the ground wire carried to the engine, and the two wires from coil to commutator brought forward in a straight line along the starboard side of the cylinders.



THE FAMOUS OLD DAUNTLESS AT THE START OF THE OCEAN RACE AGAINST CORONET, MARCH 12, 1887.

When Yachts Raced for Cash

By LAWRENCE PERRY

WHEN American yachting was in its infancy—a lusty infant it was—things were done in the name of sport which gentlemen refrain from in these days of ethical enlightenment. This was back in the forties, just after the Mexican War. Until then we had been exclusively engaged in the strenuous grind of establishing our commercial claims among the galaxy of nations, and, having done so, not a few men—good or bad, as the case may have been—were surprised, we may assume, to find among the net results of their labors opportunities for the enjoyment of a certain amount of leisure.

Now leisure is the mother of sport. Her first offspring in this country was yachting. If you ever catch some one of the few old-time members of the New York Yacht Club in a reminiscent mood and display a flattering amount of interest in what he has to say, you will hear things about the yachts and yachtsmen of those days that will surprise, shock, amuse and thrill you.

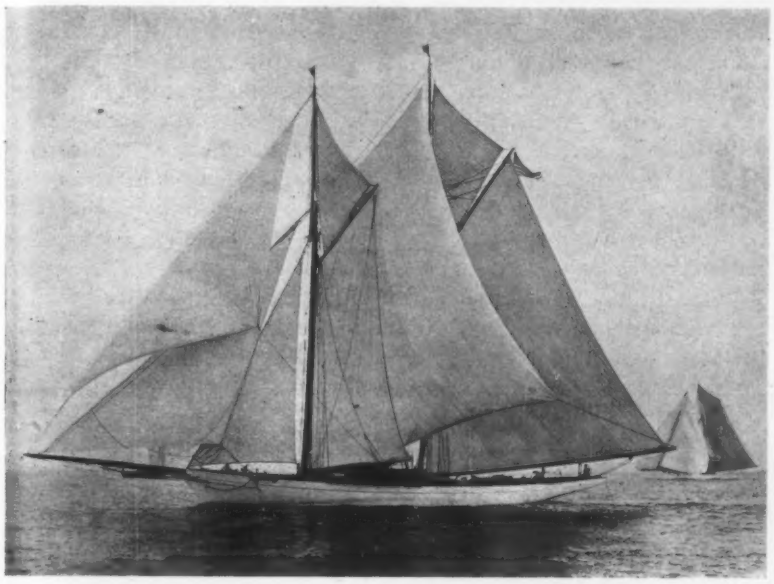
It was all so different then, fifty and sixty years ago. Men were proud of their beards, and deservedly, for they were opulent of growth and of artistic design. The town got its chief amusement at the theatre on Chambers Street, where Mr. Burton portrayed the bibulous Toodles, and women of forty put on caps and settled down to spend the rest of their days as "old ladies." In all of which apparent digression may be read the fact that yachting, as then conducted, had few frills and furbelows about it, reflecting in no small degree the grim, indomitable, relentless spirit which had placed our merchant marine in a position second to that of no other country.

When a man had a yacht which he believed to be swifter than any other boat afloat the most efficacious way of proving the sincerity of his conviction was to back it with a wager, ranging anywhere from five hundred to thirty thousand dollars. Such a man was not frowned upon as being unethical in his sporting proclivities. On the contrary, he at once took his place as one of the great men of the sport, and, other things being more or less equal, he stood a fine chance of election as one of the flag officers of the New York Yacht Club.

It is not the fashion to race for money any more; and it is well that this is so, because the evils which developed through this practice were such that, had they been allowed to continue, the sport of yachting in this country to-day would not have been a thing to write of with moral elation. Even as it stands, there are some memories of those days which are remembered with keen regret and referred to as blots upon the pages whereon appear our yachting annals.

Dauntless and Coronet, for example. Coronet, a staunch schooner, was launched when Dauntless, full of ocean-racing honors, was twenty-one years old. The owner of the new boat was blatantly confident of the ability of his vessel to take from the veteran schooner her well-earned laurels. So arrogant was he that Commodore Colt sent his yacht to the shipyard for repairs and bet Coronet's owner $10,000 that Dauntless could lead the new craft from Sandy Hook to Liverpool. She was full of soft spots, and there were many who prophesied that the old hero would not survive the journey across the Atlantic, March, the month in which the start was made, being as turbulent a period on the North Atlantic as it is to-day. Nevertheless, under the skilled ministrations of Capt. Samuels, of the clipper Dreadnaught,

she made the passage in sixteen odd days, with the crew at the pumps throughout the trip. Coronet crossed in 14 days, 23 hours and 30 minutes, winning the race. Charges of the gravest nature grew out of this contest. Holes, it was found, had been bored on either side of the stem of Dauntless, supposedly the work of some person who had a financial interest in winning money—many side bets were made on this race—by having Dauntless founder at sea. Detectives worked on the case for



COMET, A SCHOONER ON WHICH MUCH MONEY WAS WAGERED.

several weeks, but never discovered the scoundrel, and it was never really known whether the holes were bored accidentally or by design. Nevertheless, yacht races on wagers received a blow through this incident which gradually put an end to the practice.

It would be difficult to find a man who regrets this, although many will be found ready to declare that when yachtsmen ceased to back their opinions with hard cash the brave days of the sport ended. This is as one may feel; but, feel as you may, it is impossible, in delving into history of the past, to combat the conviction that, despite the evils involved, this bygone era produced men whose hands you would like to shake, deeds that make you proud of vanished generations, and incidents that outrival the imaginings of Cooper or of Clark Russell.

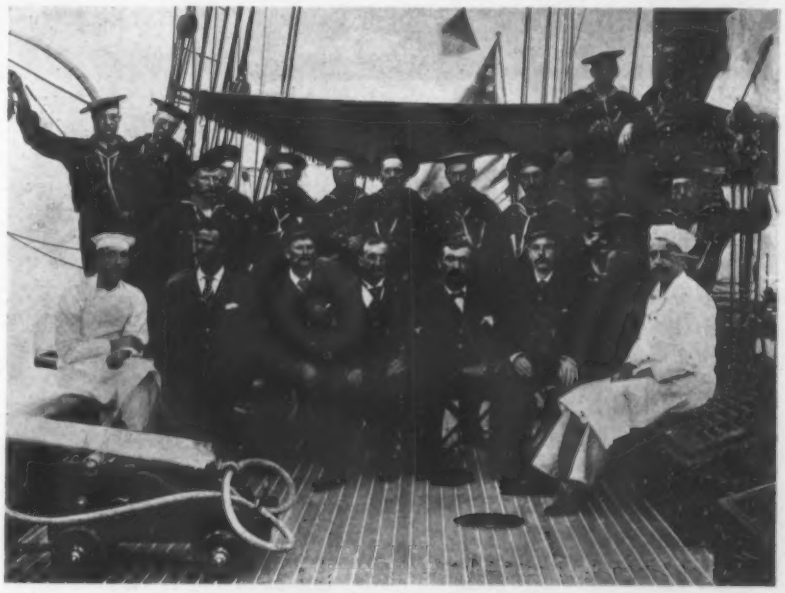
The New York Yacht Club was not two years old when it held its first match race, a contest at $1,000 a side between the 154-ton Maria and the 74-ton Coquette, the course being laid from the club-house at Elysian Fields, Hoboken, to the white Gedney Channel buoy and return—40 miles. The disparity in size will be remarked. In those days measurements, time allowance and handicaps were unknown. If you had a boat in which you believed, you did not care if the rival boat was the size of a church; all the more honor if you beat her. In the race under consideration the smaller boat won. It was sailed on May 10, 1846. In May of next year Sybil defeated Cygnet in a race for $500 a side from Hoboken around the Southwest Spit and return. But Cygnet got even, so far as money goes, by defeating Cornelia over the same course on May 31 of the same year, 1847. While, as stated, she got the money, her laurels were rather tinctured by the fact that her rival went aground on Ellis Island on the way to the Narrows and stayed there for several hours. When men race for purses they are not apt to be polite, not to say sportsmanlike, when a rival gets into trouble.

And so, races for purses, varying in size from $200 to $1,000, continued until, in 1851, the famous schooner yacht America went over to the other side, and in match contests preliminary to that for the trophy, afterwards famous as the America's Cup, picked up a snug little sum from owners of British boats. In August she defeated the schooner Titania in a race for £50, and the next day, August 29, she won another £50 from the same boat.

Sporting proclivities of the time sometimes resulted in queer races. There was that sailed on June 18, 1862, between Magic and Josephine for $1,000 a side. The stipulation was that the contestants should sail the course, which was 15 miles to windward, with but one tack every 30 minutes. Magic fetched the windward mark and won the race. How Josephine might have negotiated the course must always remain a problem, since she ran into a fog bank and never got within smelling distance of the goal. A rather unsatisfactory way in which to lose $1,000, it may be said. Well, so it was. But races were races in those days, and when you put up your money you took what came and kept still about it. And if you could not keep still, you got out of yachting and nursed your injured pride and fingered your depleted pocket book with no sympathetic friend to comfort you.

After the New York Yacht Club moved down to Clifton, Staten Island, the first important race under the auspices of the club was that between the then famous Magic and Pauline. Magic's owner believed so thoroughly in his vessel that he put up $3,000 against $2,500 of the Pauline owner's money. Everyone in the club and many out of it plunged on this contest, Magic ruling a warm favorite. But the sure thing "went wrong," Pauline taking the lead at the start and never losing it, "breaking thereby many hearts and pocket books," as a newspaper of the day put it.

A bit later the owners of the schooners Palmer, Phantom, Idler and Eva made up a pot of goodly size and raced for it down in New York's lower bay; but the wind gave out and the contest was not decided. In September, 1862, two famous boats, or, rather, boats destined to nautical immortality, came to the fore in a race for $500 a side from Sandy Hook to Cape May, the first race sailed over this course. They were James Gordon Bennett's Henrietta and George A. Osgood's Fleetwing. Fleetwing won, which made Mr. Bennett ambitious to even matters in a race



THE CREW OF THE DAUNTLESS.

across the Atlantic, of which more anon. In the meantime, Henrietta gave her owner some satisfaction by defeating the schooner Restless in a race for $500 a side from Sands Point to Bartlett Reef Lightship, off New London.

In one of the New York Yacht Club's annual cruises of the sixties the owners of Widgeon and Vesta enlivened the port-to-port routine by racing from Fort Adams, in Newport harbor,

(Continued on page 70.)

Reefs and Revolutions

IN THE PACIFIC NORTHWEST THE AUXILIARY IS THE IDEAL TYPE OF CRUISING CRAFT—WHERE THE VALUE OF A GASOLENE MOTOR BENEATH THE COCKPIT IS APPRECIATED—REVERIE, A FAMOUS CRUISER

By FRANK M. FOULSER

Photographs by Dr. Wood and the Author

IT was "Heinie" Hensel who precipitated the argument as he emerged from the companionway of the Wooden Shoe with some nourishment for the judges of the cruising class. Back of the starting line the crews of Gwendolyn II, Aquila and Reverie gazed enviously and moistened their lips involuntarily as they split tacks waiting for the gun. The burgee of the Elliot Bay Yacht Club suddenly changed its angle to the pole at the end of the dock and jumped to the stiffening breeze.

"Ah, ha! that's better," muttered Jim Pelletier, the ex-Torontonian, assuming the attitude of his famous compatriot, Æmelius Jarvis, by whom he swears. The Doctor knelt over the cannon and slipped a cartridge under the breech-block.

"You were saying, Mr. Hensel," ventured the visiting Gothamite, timidly, "that the future of yachting on Puget Sound depended on the gasolene engine?"

AUXILIARY REVERIE AT ANCHOR IN THE PLACID WATERS OF A PUGET SOUND HARBOR.

IN REVERIE THE SHARP BILGES OF THE SKIPJACK MODEL ARE LED INTO A WELL-ROUNDED ENTRANCE.

"Traitor!" hissed Pelletier between clenched teeth. The Canadian, let it be understood, has so far remained adamant to every appeal of the gas engine agent, even to the extent of "sweeping" home his famous racing 18-footer Dixie rather than accept a tow in the wake of a gasolener.

The sharp bark of the little cannon interrupted the forthcoming protestation, and it was not until the racers were across and well started on their second tack, with the engine of the Wooden Shoe running several notches below full speed to leeward, that the host and owner returned to the defense of his position.

"Now, boys," he commenced, as he passed the helm over, "you all know that I've followed the windjammers as long and as faithfully as anyone around this anchorage. I've sailed boats up and down this Sound long enough to know something about them. In the old days 'Doc' Thompson and John Mungall and some of the rest of us that don't spend as much on haircuts as we used to were racing sandbaggers across the tide flats over there by the Standard Oil dock, where it costs you $10 a foot for a look-in to-day. I've owned them of all sorts, and had a lot of fun out of them; but it has come to the time now when I want to be sure of getting back to the office on Monday morning. That's why I got this box," he observed, with a complaisant wave of the hand over the trim trunk-cabin cruiser that neatly split the roll of the Sound as it swings around Duwamish Head. "I don't care as much about the active part of racing as I used to, although I enjoy watching it just as well, and I'm always glad to be on hand to give the boys a tow home when the breeze fails. But if, from my experience, I were asked to pick out the best type of boat for these waters, I should say, without hesitation, the auxiliary schooner or yawl."

"The schooner or yawl part is all right, Henry," commented Pelletier, "but cut out the gasolene."

"Oh, tut, tut, Jim!" remonstrated the convert; "just belay a little. Then you won't have so much to retract when you install a 'kicker' in the Dixie."

"I'll sink her first; I'll set her afire and scuttle her; I'll——"

the ex-Torontonian's indignation was too deep for expression.

"Oh, yes, that's what they all say," was the reply from between a pair of binoculars fixed on the boat just rounding the first stake. "Sam Hoyt, over there in the Reverie, swore he'd die a windjammer, and now look at him! Goes round boasting that he burns less gasolene a mile than any other schooner of his size on the Sound. I tell you that, outside of the racing classes, the auxiliary is the only boat."

At this juncture the duties of the judges broke up the conversation, and in the excitement of following the movements of the racers the thread of the discourse remained broken to the end of the race.

The fact remains, however, that the auxiliary is the ideal type of pleasure craft for the Pacific Northwest. Given a cruiser of 35 feet and up, with just enough power to drive her through a channel against a head tide, or to make a port instead of having to spend a night outside, and the most exacting could not ask for a better boat or find a better way of despatching dull care than by a cruise anywhere in Puget Sound or through the inside passage along the British Columbia coast to Southeastern Alaska. Even the power boat enthusiasts recognize the value of a bit of canvas in case of a breakdown, and the majority of the enormous fleet of recently-built motor yachts have auxiliary masts for emergency use. There never can enter into the motor boat, however, that personal element which characterizes sailing, and the

man who has been properly initiated into the delight of handling canvas and tiller will never be satisfied to renounce them wholly in favor of purely mechanical propulsion. The low-powered but reliable "kicker" is bound to become the bridge across that breach which separates the new order from the old. But now to the application of our theory!

THE END OF HOOD'S CANAL, A FAVORITE CRUISE ABOUT 100 MILES FROM SEATTLE.

The oldest and most consistent yachting member of the Elliot Bay Yacht Club, of Seattle, is Vice-Commodore Samuel Hoyt, a retired shipmaster, now serving the United States Government in the capacity of inspector of steamers and launches on the inland waters of the State of Washington. He and his good ship Reverie have never missed any of the cruises of the local clubs since their inception. In fact, the Captain fairly lives aboard his boat, both summer and winter; and because this case furnishes the most striking example of the amount of enjoyment that can be extracted from a remarkably conservative investment, I have used it to prove my contention.

Reverie is entered in the Pacific Coast category as a "bald-headed," skipjack schooner. She is a modification of the Seabird, a design familiar to the Eastern Coast, and of the Naiad, formerly of Chicago; but is much larger than either. In fact, she is the largest skipjack on the coast. Her length over all is 45 feet; beam, 15 feet; molded depth, about 4.5 feet, and draft, about 5.5 feet. Her construction is heavy and strong, the wisdom of which her winter cruises have demonstrated many times. There is no outside ballast, but, instead, 5 tons of wash gravel are stowed away beneath the flooring.

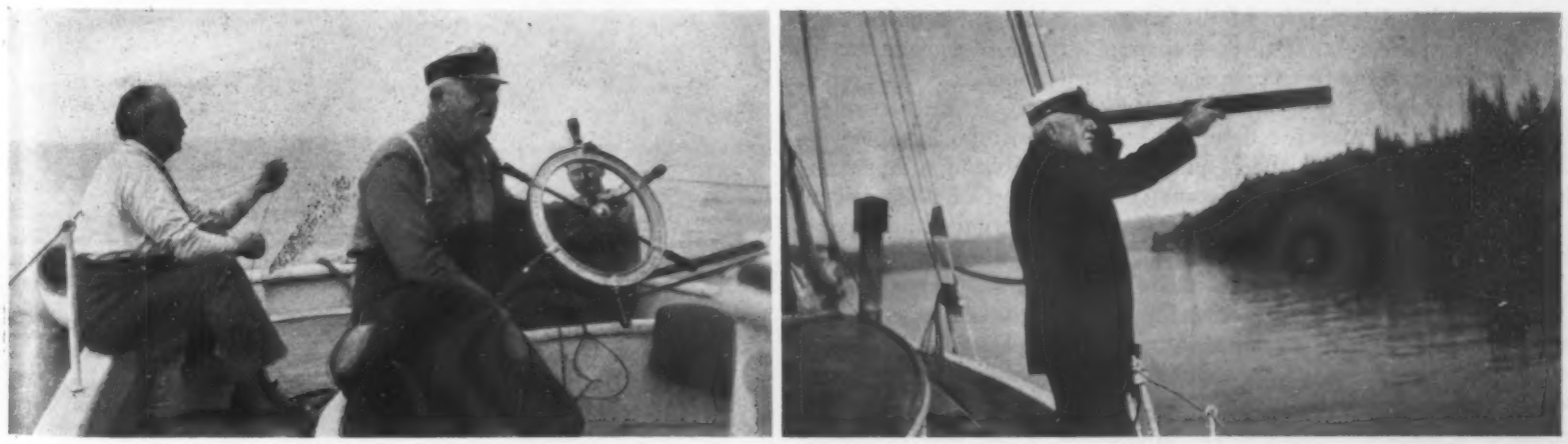
Outside, her appearance is much more pleasing than is the case with the usual skipjack model. Forward, the sharp bilges are led into a nicely rounded entrance, and aft they merge into a broad elliptic transom, which bears the name in bold letters, while there is a marked dead rise. It takes half a gale to put her rail down, and nothing short of a waterspout could capsize her.

Inside of her, few homes can boast the complete and comfortable quarters, which are the pride of the Captain's heart. The kitchen—I refuse to call it a galley—is 7 feet deep, and extends across the entire ship. There is not a utensil missing which even a Parisian chef might desire. The owner is a connoisseur, and many a meal has come forth from that kitchen which would have wrung an epigram from a Savarin. To have occupied the post of cook on board of Reverie is an honor as great as having won a Beaux Arts diploma, or shaken hands with Napoleon, or fought at Bull Run, or anything else that one likes to relate to one's grandchildren.

The social activity of the ship centres in the 11-foot cabin, which is located aft of the kitchen. Some idea of its roominess may be gained from the recollection of a certain club cruise, when nearly thirty men held an impromptu smoker and sangfest in this cabin. Luxurious Pullman berths on either side afford comfortable sleeping quarters for four. A phonograph completes the list of cabin equipment. On one side, aft of the cabin, is the owner's stateroom. Concealed by the companionway, a little 5-horsepower, single-cylinder motor stands in readiness for a flat calm or head tide (the Captain never burns gasolene unless he has to), while a 70-gallon tank furnishes a supply of fuel sufficient to run the boat 70 knots at the rate of 4 knots an hour under favorable conditions.

The sail plan consists of the usual working canvas of a schooner, with a big fisherman's staysail aloft. When the occasion demands it, however, it is surprising how much extra sail area can be added. Take, for example, the day of the race which introduced this story—a race that the Reverie, with the aid of a just handicap, won. A broken spar was lashed to the bowsprit; from somewhere below a flying jib appeared; the small storm jib was converted into a jib topsail; a main topsail was borrowed, and when the Reverie bowled handsomely across the finish line, like a young and giddy racing crack from the Herreshoff yards, one never would have recognized the transformation.

If you have now familiarized yourself with the stage settings, I am ready to introduce to you the central figure of my story in action. There are other cruising auxiliaries in Seattle, Tacoma, Everett, Bellingham, Vancouver, Victoria and all the rest of the



SOME CHARACTERISTIC ATTITUDES OF ONE OF SEATTLE'S FOREMOST YACHTSMEN, CAPTAIN SAMUEL HOYT, ON BOARD HIS AUXILIARY REVERIE.

ROYAL VICTORIA YACHT CLUB ANCHORAGE. AUXILIARY GAZEEKA IN THE FOREGROUND, AND THE OCEAN CRUISER TARAMONTANA AT THE FLOAT.

cities on Puget Sound and the adjacent waters; but there are no other Captain Hoyts. Twenty-five years' close contact with the sea would seem sufficient excuse for a man not to play at yachting—though cruising with the Captain is not altogether play. At the beginning of every cruise the crew is mustered in and assigned to stations. No matter who or what the individual may be in private life, the moment he steps aboard Reverie he becomes responsible for certain duties requiring the use of his hands, and these he finds himself obliged to do. The spectacle of some Eastern capitalist with sun-peeled nose and blistered hands holystoning the deck or polishing brass with childlike anxiety to please is not at all unusual. At 11 o'clock the Captain makes his daily round of inspection, and woe betide the luckless individual who has neglected the tasks assigned him.

On the other hand, there is plenty of fun to recompense. Fishing in all its forms may be found within easy cruising distance of Seattle. Especially during the run of the steel-head salmon may good sport be enjoyed. A craft like the Reverie in a mild breeze slips along just about fast enough to tempt the big fellows. The Captain himself, although a recent convert, is now an ardent fisherman. He has a trolling rod, which he loves to hold in his hands whether the fish are biting or not. It is not unusual for him to take his afternoon siesta at the butt end of a split bamboo, although this he constantly denied until photographic evidence was brought to bear, and even then he accused the camera of lying.

The Captain was born in South Boston and grew up on Massachusetts Bay. Those were the days of the early international races, the days when the cutter Madge, after cleaning up the crack ships of the New York Yacht Club, came over to Boston and met defeat at the hands of Aubrey Crocker with the old Herreshoff sloop Shadow, which Dr. John Bryant had rescued from oblivion. On the boats of this period and place Captain Hoyt was a frequent guest and handy member of the crew, and many a reminiscence of the bygone days has filtered through the younger generation of this new country from his personal recollections.

From the log of a ship like the Reverie it is difficult to select any particular cruise for detailed description. She has been in commission constantly, and is quite likely to be found, either summer or winter, at any point from Alaska to the Columbia River. Last winter, for instance, parts of January, February and March were spent in cruising around Vancouver Island. On this trip Reverie accomplished the unusual feat of sailing through Deception Pass, a narrow inlet noted for the strength of its currents, against an 8-mile tide, under canvas alone. During the entire trip but one meal was taken ashore, although landings were made in all the ports entered. The Captain is very proud of this record as a tribute to the perfect equipment of his boat. During this trip strong southeast gales were encountered; but, on the whole, the trip was made with as much comfort and enjoyment as during the summer months. The cruise ended with the marvellous run from Edmonds, Wash., to Seattle—a distance of 16 nautical miles—in one hour and thirty minutes.

Summer finds Reverie very busy indeed. Week-end trips, interspersed with cruises of longer duration, occupy much of her time. At the club cruises and regattas Reverie is always the center of entertainment. This season the Captain is looking forward to showing some of his Eastern acquaintances some of the beauties of these cruising grounds, which he has been exploring for the last three years. Apple Tree Cove will be the rendezvous this year for the international regattas, which over a thousand yachtsmen are expected to attend.

While Reverie has been taken as the object lesson of my little talk, she is by no means the only auxiliary cruiser on the Sound. Captain Harry Struve, of Seattle, another retired sea captain, has just started for Alaska in the yawl Tramontana, which he brought up from Los Angeles, on the Southern California coast. The Tramontana has made several trips to Honolulu with her former owner on board. She is about 65 feet long over all, very heavily built, and is equipped with a 16-horsepower motor. Captain Allison, of the Elliot Bay Yacht Club, is another sailing man who has become converted. Formerly part owner of the famous old sloop Lavita, he bought, with Mr. J. Sands, the Penelope, a 40-foot yawl, in which he has installed a 4-horsepower engine, while Lavita, an old-time champion racing sloop, has gone across the Straits to the Royal Vancouver Yacht Club, and has blossomed forth as a high-powered auxiliary. The Royal Vancouver Yacht Club has a splendid fleet of auxiliaries. There is Gazeeka, a fine cruising yawl, owned by ex-Commodore Thynne, and Minerva, this year's Texada Island champion, which was built in China. Vice-Commodore E. H. Alexander is having a cruising yawl with auxiliary power built, and there are a dozen or more big ones in the club, each with a "kicker" stowed away below.

It would not do to close this story without mention of Gwendolyn II, the property of the Johnson brothers, of Seattle. This boat will be recalled as the winner of second prize in the long-distance race to Honolulu last year, and was widely exploited at the time. Her old-time rival, the Aquila, of Seattle, built by the Rohlfs brothers, who have recently launched "Ted" Geary's new cup challenger, Spirit II, is still in commission, and is regarded as one of the best cruising types of the Northwest. Aquila has a 6-horsepower engine, and Gwendolyn II is bored for a motor, but so far has gone without one. The owners of these two boats have inaugurated what promises to grow into a yachting fixture of unusual interest, namely, an annual winter race for cruisers. The races of the last two years were around Protection Island over a 110-mile course. Next year a big list of entries is expected, as the event will be thrown open to outside competition.

ON PUGET SOUND THE AUXILIARY SCHOONER IS AN IDEAL CRUISING BOAT.

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"WITH GATHERING WHITECAPS DOTTING THE TIDE-DISTURBED WATERS, WE RUSHED ALONG AT A GREAT CLIP."

From Gravesend to Providence by the Outside Route

By HOLLIS BURGESS

MANY will doubtless recall that Dorothy Q, the Class Q, Herreshoff-built racing sloop, sailed from the coast of Maine, on the north, to Norfolk, Va., on the south, during her racing season in 1907. All this distance had been outside sailing, except from Newport, R. I., to New York, when she took the inside route through Long Island Sound. At the end of her long trip back from Norfolk in September she had been hauled out in a marine basin at Brooklyn for the winter, having proved that a 25-foot waterline yacht, built under the Universal Rule, was capable of sailing anywhere along the coast.

THE SKIPPER OF DOROTHY Q.

Early in the spring of 1908 the writer decided to take the Dorothy Q to Providence, R. I., to compete in races on Narragansett Bay, and the question arose as to the best route to Providence—whether to go through Hell Gate and sail down Long Island Sound or to take the more exposed passage outside. Very few small yachts have been sailed outside of Long Island in early spring; but I was exceedingly desirous of completing the last link in the chain of outside sailing from Maine to Virginia, and, therefore, decided on the more dangerous and exposed route. May 15 was the date set for Dorothy Q's departure.

Her crew for the trip consisted of T. R. Goodwin, president of the Narragansett Bay Yacht Racing Association; Fred Thurber, a well-known Providence yachtsman, and Fred Stowe, of the same city, with the writer in command. We found there was a great deal to do to get the boat ready for sea, and it was not until four o'clock in the afternoon that the Eastern Yacht Club flag was raised to the masthead and the writer's private signal broken out at the peak, which put the yacht formally into commission for the season of 1908. At five o'clock we passed out of the basin, threading our way along through a maze of ropes attached to various yachts lying there, and made our way down the bay before a sluggish northeast wind. The weather was rather depressing. Rain had fallen until three in the afternoon, and though it had now stopped, the sky was gray and overcast. Nothing could dampen the spirits of our crew, however, who were all delighted to be at sea once more after the long winter season, and we looked forward with eager anticipation to whatever the Fates might have in store for us. We soon passed the handsome club-house of the Atlantic Yacht Club, where I had been so hospitably entertained the year before, and at a quarter of six Coney Island Light was on our beam.

Half an hour later, as we came abreast of the gaudy spires and minarets of Coney Island's amusement park, the wind fell to a mere whisper. Goodwin went below to prepare supper; but, to his consternation, discovered there was no kerosene oil in the can. The rest of us started to heap reproaches on him for his carelessness in not attending to the oil supply, as he was the official cook for the trip as well as first mate; but he stoutly maintained that he had filled the can before we left, and soon discovered that it had sprung a leak and deposited all of its contents in the bottom of the boat. There were only two things to do, as

DOROTHY Q. PASSING GRAVESEND BAY.

we could not get along without oil. One was to put back to the marine basin for it, the other to land at Coney Island and try our luck there. We decided on the latter course, and Fred Stowe jumped into the tender and started for the shore. On his way he espied a fishing schooner sailing along in his direction, and, thinking to save himself a long row by purchasing some oil from the vessel, he made for her. To his great astonishment, the schooner approached him at a rapid pace, though there was no wind visible on the water; and he was soon chagrined to find she was an auxiliary, shooting along about 6 miles an hour, sweeping by him in short order. Giving up the attempt to board her, he headed once more for the land, and finally beached the little skiff through the surf on Coney Island beach.

We drifted around in the gathering darkness for some time waiting for the skiff to return, and at last, to our great satisfaction, Stowe appeared with the precious fluid. He told us that he had experienced great difficulty in purchasing it, as there was a law in force on Coney Island which prohibited the sale of oil or gasolene after six o'clock in the evening. He had tried several stores, where his request for oil was flatly refused; but at last, as he was about to give up in disgust, he found a kind-hearted storekeeper who listened to his appeal as a mariner in distress and filled up his can for him. The official cook soon had the stove sputtering merrily away, and prepared a bounteous repast.

Before we left it had been settled that Goodwin and I would take the starboard watch and Thurber and Stowe the port; and, having drawn lots for it, the starboard watch got the first watch below. From eight to twelve Dorothy Q sped easily on, with a gentle breeze forward of the beam. It was delightful sailing now, the moon shining out at intervals through the heavy clouds, while the warm breeze fanned us along in good shape. Our binnacle was lighted by electricity, three dry batteries and a small incandescent light comprising the electrical equipment. The bright, white light thrown on the compass card was a pleasing contrast to the flickering yellow light of the regular oil lamps, and made steering by compass easy.

At midnight Goodwin and I came on deck, while Thurber and Stowe retired to their bunks without delay. An hour later we were surprised to see occasional white gleams ahead of us, and soon realized that they came from breakers on the shore. The port watch had evidently held their course too close to land. We quickly squared off before the wind and ran off-shore, white-crested rollers constantly flashing off our port bow and the heavy boom of the surf filling our ears. The breakers were on the low-lying, sandy strip of shore known as Rockaway Beach, which forms a barrier between the shallow waters of Great South Bay and the open waters of the Atlantic. As soon as we were well clear of the beach we headed Dorothy Q on her course again, east by north, one-half north, keeping the land in sight.

At half-past one we passed some floating wreckage, and, a few minutes afterwards, a striped can-buoy, which had evidently been placed to mark a sunken vessel, as there was no record of it on the chart. Shortly afterwards, a large, shadowy shape loomed up on our beam in near the land, and we knew it must be the hull of the big steel German ship Peter Rickmers, whose stranding a few days before off Smith's Point Life Saving Station had been recorded in the newspapers.

About two o'clock the brilliant white flash of Fire Island Light was seen ahead off our port bow, though it was fully fifteen miles away. Half an hour later the wind fell very light, but soon freshened again, veering to the north, and Dorothy Q, with sheets well eased, rushed along at a smart pace. At four o'clock, as we drew near Fire Island Light, we were surprised to notice a bright red glow off our port bow, which gradually grew brighter and brighter. At first, we thought there was a big fire on shore, but soon discovered that the glow was caused by the rays of the rising sun shining on the white sand dunes. Wider and wider grew this glowing belt as the dark clouds above it slowly rolled away, unfolding to our gaze a gorgeous sight.

No one cared to sleep with such a scene as this before us, and even the unromantic Stowe, after rubbing his sleepy eyes, remarked that "this was the nearest to Heaven he ever hoped to get." Those who have not seen a sunrise at sea cannot readily appreciate what a really magnificent spectacle was before us. For fully half an hour we sailed along as if through fairyland, while quickly changing shades of color passed in rapid succession over the eastern horizon. At last, at twenty minutes of five, having been thus duly heralded by his satellites, the sun himself rose majestically out of the water and a new day was begun. At six o'clock we passed a large ocean-going steamer, inward-bound, which was the only vessel we had seen since leaving Coney Island.

THE CREW AFTER A GOOD BREAKFAST.

The sun, mounting higher and higher in a cloudless sky, now began to make itself felt, and heavy clothing was soon cast aside.

The wind fell light once more, and a heavy ocean swell tossed Dorothy Q around in annoying fashion. Goodwin cooked the breakfast again, and, after we had finished, we lolled around on deck, telling stories and whistling for a breeze. I also took several photographs of the crew and snapped Dorothy Q from the tender. Some time later a light breeze sprang up, and we set a balloon jib. It was not until half-past eleven that we had much wind to speak of, at which time a fresh southerly breeze sprang up and drove us along rapidly past the low-lying sand dunes of the Long Island shore. The appearance of the coast here is very similar to that of Cape Cod, and looked familiar to some of us on that account. The weather was delightful, and hour after hour we sped along over the sparkling, live water. We had been expecting to encounter cold and blustering weather, and this delightful passage was a most agreeable surprise. At five o'clock we passed the lofty tower of Shinnecock Light, and the wind, hauling to west-southwest, enabled us to set our spinnaker. As darkness came on a full moon rose out of the water, lighting up the sky as if it were daylight.

CONIMICUT LIGHT.

At ten o'clock Montauk Light was sighted far off in the distance on the port bow. The wind increased considerably, and Dorothy Q tore along in a perfect smother of foam. The air was now crisp and cold, and warm clothes were in order. Shortly after midnight we passed Montauk Light, and here the wind dropped so rapidly that it soon became but a mere breath. For three hours we drifted along, a strong tide kicking up a nasty chop, which, with the heavy ocean swell, slatted our sails wildly to and fro. The tide drove us down towards Block Island, and we passed close to its southwesterly point. Skirting the west shore, we succeeded in passing the bell buoy off North Point at half-past seven.

To our great satisfaction, the wind now set in fresh from the southwest, and, setting our spinnaker again, we made such fast time that we slid by the big whistling buoy off Point Judith at quarter past eight. Under a cloudless sky, with gathering whitecaps dotting the tide-disturbed waters, we rushed along at a great clip, soon passing Narragansett Pier, and reaching Brenton's Reef Lightship at half-past nine. As we were now approaching Narragansett Bay, the Eastern Yacht Club flag was lowered and the burgee of the Rhode Island Yacht Club raised in its place. The wind by this time was blowing very hard, and, as we drew in near Fort Adams, it looked as if we might have a little difficulty in smothering the spinnaker for a jibe. It was very cleverly taken in, however, by Goodwin, whose skill in light sail-handling has won him the sobriquet of "Light Sails Goodwin," and, jibing the mainsail, we headed straight up Narragansett Bay.

Having passed through the Narrows, with its frowning guns on one side and its handsome summer villas on the other, we met a heavy tide rip, caused by the ebb tide running against the strong southwesterly wind. It was blowing a double-reef breeze here; but, not wishing to take the time to reef, as we were out for a record-breaking passage, we eased the strain on the mainsail by settling the throat and peak a little. Rushing along at a terrific pace, we passed Sandy Point Light, on Prudence Island, at ten minutes past eleven. As the wind was now blowing 25 miles an hour, we lowered the jib, to lighten up the strain still more. We made record time to Conimicut Light, where the wind lightened under the lee of the land to such an extent that we were able to crack on all sail again. Exactly at one o'clock, sailing at a rapid rate, we sped past the club-house of the Rhode Island Yacht Club, and, shooting up to our mooring close by, our cruise was brought to an end. We had covered 150 miles in forty-four hours, and the last link in the chain of outside sailing was welded.

I believe that the Dorothy Q is the only 25-foot waterline sailing yacht that has ever sailed all the way outside from the coast of Maine to the coast of Virginia, and I sincerely hope that the performances of this staunch little craft may encourage others to try the pleasures of off-shore sailing.

ON NARRAGANSETT BAY.

The Month in Yachting

Photographs by Edwin Levick and George G. Bain

AT last a way has been found to meet the one telling argument against one-design classes, said argument holding that boats of a type generally similar, but from the boards of different designers, furnish races more interesting and more valuable than racers evolved by one designer. The way was very simple; three boats created by one designer raced against three products of another designer. Who could ask for anything better than that? The race was between one-design sloops belonging to the Islip Yacht Club, designed by William Gardner, and sloops belonging to the Massachusetts Bay Yacht Club, from the boards of H. J. Gielow. The Gardner boats were centerboarders; the Gielow boats had keels. Which club won, and why, is beside the point I am making. My intention is merely to suggest this contest as an idea for other clubs to follow. Almost every yachting organization has its one-design class now, and inter-club regattas arranged especially in the interest of such classes would be well worth while, not only from a sporting standpoint, but from the viewpoint of yacht construction. The Islip-Manhasset race, for example, involved centerboarders and keel sloops. Now while one meeting between the two types might furnish inadequate data for future procedure, several such races throughout the season could hardly fail to do so.

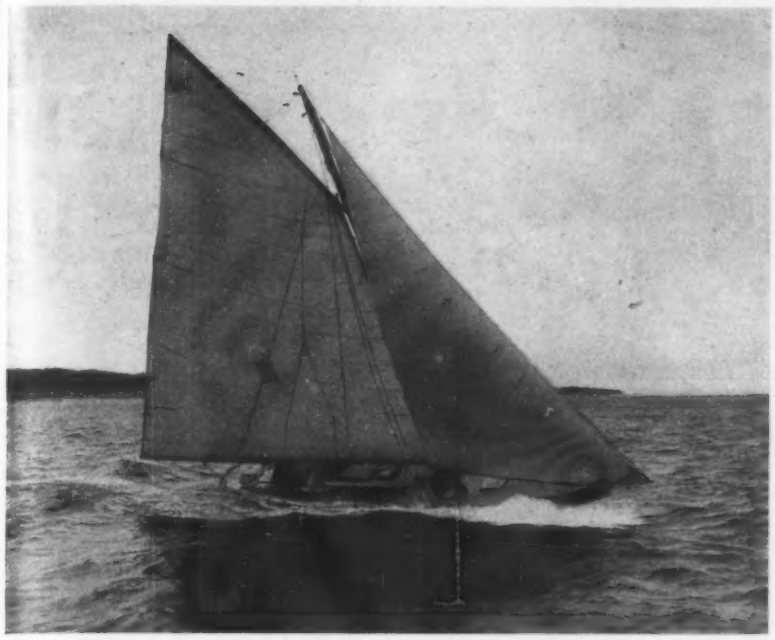
THE ONE-DESIGN CLASS FOR THE NEW CEDARHURST YACHT CLUB.

In connection with these one-design classes of small boats it may be said that their growth in the present season has been nothing less than extraordinary. Around New York, for instance, six clubs have new classes of one-design boats this season. These range from the 21-foot waterline class of the Islip Yacht Club, before referred to, to the 15-footers of the new Cedarhurst Yacht Club. Of the Gardner boats designed for the Islip Yacht Club there are thirteen. They are 30 feet over all, 21 feet waterline, and carry about 450 square feet of canvas. Under the amended Uniform Rule they rate 17 feet, and cost about $1,200 each. Aside from having keels instead of centerboards, the five boats which Mr. Gielow designed for the Manhasset Bay Club rate approximately the same, although they carry a somewhat smaller area of sail. The Cedarhurst Yacht Club boats, which are 22 feet over all and 15 feet on the waterline, were designed by Cox & Stevens. Here is a class the boats of which cost but $500 each—a figure sufficiently reasonable to be within the means of almost any young organization. Another class of boats by the same designers was delivered early this season to yachtsmen in the vicinity of Glen Cove, L. I. The owners are members of various clubs, but the sloops will be sailed as an independent class. They are 19 feet waterline. The Bayonne (N. J.) Yacht Club has a game little one-design class of 16-foot cats for racing in New York Bay, while on Massachusetts Bay the Manchester Yacht Club has brought out a one-design class, consisting of eleven 17-foot waterline sloops, which, added to the one-design classes of the Hingham, Boston and Cohasset Clubs, will insure the best of sport for men of moderate means up in New England. Altogether, there can be no doubt that the one-design tendency is spreading throughout the country. Men who have formerly been known as "large-boat" yachtsmen, who spent thousands of dollars on crack windjammers and paid professionals goodly sums to sail them, are found in these one-design classes in large numbers; and they seem to get more satisfaction out of sailing their own craft and winning their own trophies than in the days when they sat back and watched other men do it for them.

But a word of warning seems necessary, in view of the practices which are reported to have obtained in one or more of the boats of the New York one-design, 30-foot class in recent years. Don't monkey with your craft. You may obtain temporary advantage by surreptitiously increasing your wetted surface or tinkering with your sail area; but the end is dissatisfaction, irritation and the gradual disintegration of your class. When the 30-foot class of the New York Yacht Club was organized, in 1905, the eighteen sloops rated practically as one boat. Changes crept in from time to time, until this year the official measurer got after the few boats of this class that remained with a big stick. But the harm—the discouragement of owners who sold their boats out of the club—had been worked. This year, of that famous one-design class, Adelaide, Alera, Atair, Banzai, Dahinda, Ibis, Nepsi and Phryne are left.

Last month, as a result of misinformation, I stated that William Hale Thompson, owner of the crack schooner Valmore, depended upon a sailing master in his races. Nothing could have been further from the real facts, which are that Mr. Thompson is perfectly capable of sailing his own craft, and does sail it in all races. I have apologized to Mr. Thompson for this injustice, and here I desire to make public apology.

Talk of professional skippers as against Corinthians still goes on by the banks of the great fresh sea. Not every one favors the action of the Yacht Owners' Association of the Chicago Yacht Club in barring paid skippers from the Mackinac race. One opponent makes the point that, when the amateur skipper is weary from a long vigil at the wheel—say in bad weather—he would find it very pleasant to yield himself to rest while a "pro" came to his relief at the tiller. Naturally, a man of discernment will see many flaws in this line of reasoning. Another point, made by another Chicagoan, is somewhat akin to that brought out in this department last month—i. e., the discouragement to men who,



THE NEW YORK YACHT CLUB 30-FOOTER PHRYNE. THIS FAMOUS CLASS IS ALREADY BECOMING SCATTERED.

were they allowed to hire professional skippers, might buy large racers, many of which are on the market at low prices in New York and Boston, and bring them to Lake Michigan. There may be something in this; I don't know. But I do know that if I owned a lake the size of Michigan and desired to build up its yachting interests I should wait until all the big boats that were coming had arrived before I got free with restrictions. This is merely put in the way of a general proposition. I don't pretend to know the exact conditions underlying the action of the Chicago Yacht Club. They may have been adequate; probably they were. I do wish, though—to change the subject—that the Chicagoans had kept the date of the race to Mackinac as originally set—July 17, I think it was. Then Æmelius Jarvis would have come up with his Zahra, together with several other Toronto yachtsmen, and made a stab at the Mackinac laurels. An international long-distance race for the Mackinac trophy would have been about the most important yachting event held in the United States in a good, long while. It is still possible, however, that the Canadians may be induced to come down for the event.

It will be interesting to see how Dr. Baum manages in sailing races, now that he has a 60-horsepower engine installed in his schooner yacht Amorita. Cary Smith was in his best vein, in the midsummer of his ability, when he evolved this fine schooner, and it is good to know that in Chicago she will receive much of the attention which was her portion in the East some years ago.

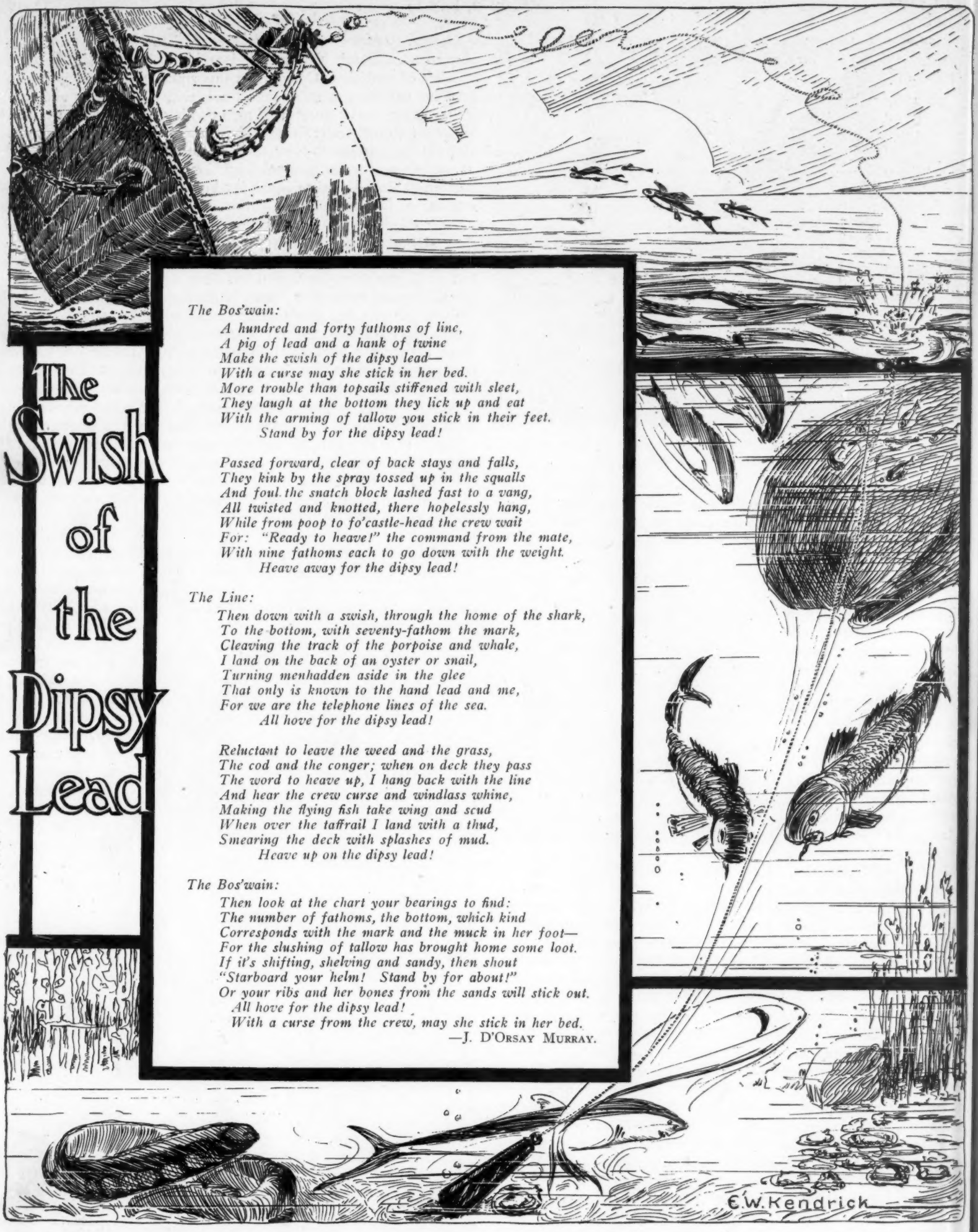
The race for the Manhasset Bay Cup next September is going to be a clinker. Herreshoff has built an improved Mimosa III for the American Yacht Club, challenger for the trophy now held by the Indian Harbor Yacht Club, while William Gardner has designed a defender—Huhsaris—which represents the highest word thus far spoken on the subject of the amended Uniform Rule. Sane and wholesome, and yet an embodiment of lines and curves denoting speed in all sorts of weather, her model suggests the very ideal of a boat which will live long after the race for which she was built has passed into history. That is to say, she will make an ideal boat for cruising. She has 5 feet 11 inches headroom in her cabin, and adequate accommodations for crew and guests. Of how many racers of the past may this be said? When Mimosa II and Mimosa III were not racing, they were useless; Seneca would be as pleasant for cruising as a slat; and where, oh, where, are Manchester, Iroquois and other racing machines which had their brief day and faded away like the lilies of the field, as it were?

Carola, Commodore Leonard Richards' fine steam yacht, flagship of the Atlantic Yacht Club, is going to be the magnet for a number of ambitious Corinthians this summer. She is going to take her station 125 miles out at sea, with the latitude and longitude given, and a number of men owning schooners, yawls and sloops of 40 feet waterline and above are going to start from Sea Gate, at the entrance to New York Bay, locate Carola—or try to—round her, and return to a point off Coney Island. The idea is to encourage Corinthianism, and it is a bully one. It will appeal to a number of beginners in navigation, as well as to men who have already taken out their certificates. I can already see ex-Commodore Doremus threshing for the flagship straight as a well-aimed bullet to a bull's-eye, in his black schooner Lasca; and who knows but ex-Commodore Tod, who has done so much to develop interest in ocean races as any man in the country, will attend in his Thistle. It is a fine opportunity for all amateur navigators, and Commodore Richards and his confreres, who devised the idea, bespeak the right men in the right places. The Atlantic Yacht Club used to have a monopoly in this ocean racing game, and it is good to see the interest which it has taken in such threshes this year.

Another word in praise of the New York Yacht Club, which, through the casting overboard of tradition and the arrangement of races in which staunch boats of weatherly qualities will have as good a chance at prizes as yachts built essentially for racing, will bring the auxiliaries of the club to the fore this year as never in the past. There are many of them in this organization, and they are owned by men who know the taste of the salt gale. You will see many of them at the line in the New York Yacht Club's long-distance regattas this season; and, if I mistake not, you will find trophies going into strange lockers. There will come a time—so a prominent designer said to me the other day—when few sail craft of any size will be without a "kicker"; in that day utility and speed will go hand in hand. Best wishes to the New York Yacht Club auxiliaries in regattas to come!

They say that the Newport Yacht Club will offer prizes worth racing for in the three days' series of motor boat races which it will hold on August 11, 12 and 13. Motor boat men from distant points are casting their eyes upon these events, and the probabilities are—at least so say the Newport motor boat men—that more than seventy-five high-powered craft will be at the starting line on the days of the races. No body of water is more favorable to the speeding of power boats than Narragansett Bay, and at the same time the run up the Sound, with just a bit of a cut across a corner of the Atlantic, makes the cruise to this body of water a most delightful one. The August series up there will give the sport just the sort of a jolt it needed in New England. The game is spreading; no doubt about it.

CAROLA, FLAGSHIP OF COMMODORE LEONARD RICHARDS, ATLANTIC YACHT CLUB.



The Swish of the Dipsy Lead

The Bos'wain:

A hundred and forty fathoms of line,
A pig of lead and a hank of twine
Make the swish of the dipsy lead—
With a curse may she stick in her bed.
More trouble than topsails stiffened with sleet,
They laugh at the bottom they lick up and eat
With the arming of tallow you stick in their feet.
Stand by for the dipsy lead!

Passed forward, clear of back stays and falls,
They kink by the spray tossed up in the squalls
And foul the snatch block lashed fast to a vang,
All twisted and knotted, there hopelessly hang,
While from poop to fo'castle-head the crew wait
For: "Ready to heave!" the command from the mate,
With nine fathoms each to go down with the weight.
Heave away for the dipsy lead!

The Line:

Then down with a swish, through the home of the shark,
To the bottom, with seventy-fathom the mark,
Cleaving the track of the porpoise and whale,
I land on the back of an oyster or snail,
Turning menhadden aside in the glee
That only is known to the hand lead and me,
For we are the telephone lines of the sea.
All hove for the dipsy lead!

Reluctant to leave the weed and the grass,
The cod and the conger; when on deck they pass
The word to heave up, I hang back with the line
And hear the crew curse and windlass whine,
Making the flying fish take wing and scud
When over the taffrail I land with a thud,
Smearing the deck with splashes of mud.
Heave up on the dipsy lead!

The Bos'wain:

Then look at the chart your bearings to find:
The number of fathoms, the bottom, which kind
Corresponds with the mark and the muck in her foot—
For the slushing of tallow has brought home some loot.
If it's shifting, shelving and sandy, then shout
"Starboard your helm! Stand by for about!"
Or your ribs and her bones from the sands will stick out.
All hove for the dipsy lead!
With a curse from the crew, may she stick in her bed.

—J. D'Orsay Murray.

E. W. Kendrick

A PORTAGE PROBLEM ON ONE OF THE STREAMS ENTERING GEORGIAN BAY.

GOING ASHORE WITH THE CAMP KIT. THE TYPE OF SMALL BOAT TO USE AMONG THE 30,000 ISLANDS.

WHERE THE NORTHERN WILDERNESS COMES DOWN TO THE SHORES OF LAKE HURON.

Motor Boat Cruising Among the 30,000 Islands of Georgian Bay

A CRUISING AND FISHING GROUND THAT IS UNSURPASSED ON THE GREAT LAKES—A BRIEF DESCRIPTION OF THE REGION, CONTAINING ALL NECESSARY SAILING DIRECTIONS

By DAN D. GRIFFITHS

Photographs by the Author and Mrs. F. W. Morgan

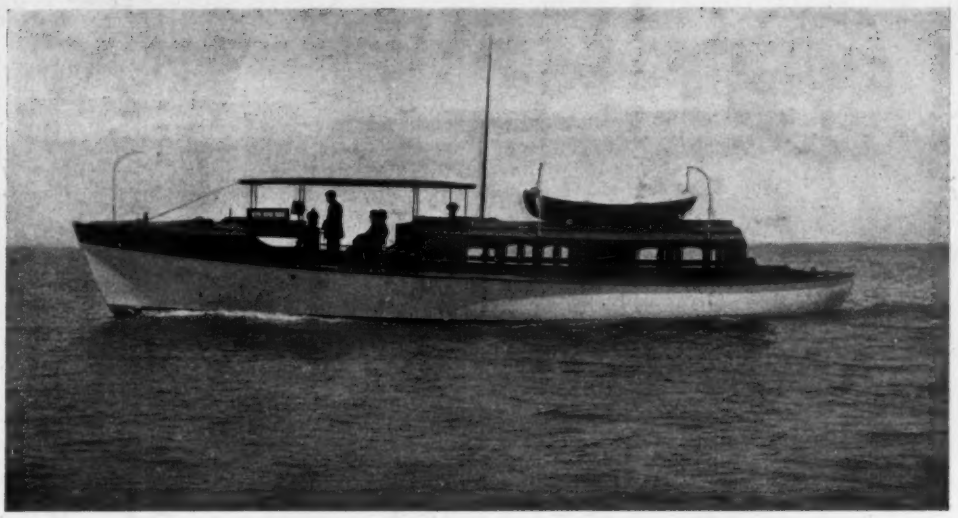
THE motor boat man's paradise—the land of Gitci-Manito! Nowhere in all America are there to be found such opportunities for pleasure cruising as among the 30,000 islands of Georgian Bay. This whole magnificent region and the entrancingly picturesque Grand Manitoulin Channel—that gem-studded coronet of mighty Huron—is a vast fishing ground, stocked with millions of the finest game and food fishes. The angler is sure of success at almost any place he may select, for the lithe trout, the gaunt and hungry-eyed pike, the voracious maskilonge, the beautiful wall-eyed pike (pike perch) and the wild little-mouth black bass haunt these waters in abundance. The fish caught in the pure, cold northland lakes are unlike other fish, and the lust of battle and the joy of conquest inherent in mankind from our primeval forbears crop out here and there in combating the wonderful strength and lightning tactics of the bass and the sullen sulks and sudden rushes of the pike.

"Come on, come on, where the red light lies
Aslant of the land and sea,
Where the wind that comes from the sunset way
Is soft as the wind can be!"

'Twas such a place as this those old warrior-gods of the red men found, and were lured on from one shadowy island to another; for the waters, the shores and the isles of this North Channel of Georgian Bay fairly teem with those legends whose mystic threads are woven into the fabric of the red man's great memorial epic, Longfellow's "Hiawatha," into the "Big Sea Waters" of Huron and through this "Lake of Many Islands." It is certainly a voyage of pure delight to the modern traveler, the city-wearied and soul-fagged ones.

To get to these fishing and camping grounds those fortunate enough to own a cruising motor boat can, at little expense, reach this grand cruising district. Such a craft, as shown in one of the illustrations, is ideal for the trip; in fact, a motor boat is the only kind of a craft to take among the 30,000 islands. A boat from 35 to 45 feet long and drawing from 3 to 4 feet is all right—even 5 feet will answer; but it is preferable not to draw over 4 feet. The bottom in this locality is like the top—hills and hollows—and the bottom comes up very suddenly all over this region.

Regarding the time to make this trip, I strongly advise one to figure on reaching Little Current, Ont., not earlier than the last week in July, and thus escape the mosquitoes and flies. The months of August and September are delightful among the 30,000 islands, and the fish also bite better during these months. As to the time necessary for such a trip, it all depends upon the amount of it one has to spare, for it can be made hurriedly or leisurely. With an able, seaworthy boat, one can, on leaving Chicago, steer a straight course down the lake 331 miles to Mackinac Island. The Island is really the starting point for Georgian Bay. Of course, in contemplating a straight course for the Island it is necessary to watch the barometer and have the engine in good working condition. This run of 331 miles at a stretch would be taken by few. The pleasanter route is to run from Chicago to St. Joe, Mich., across to the east shore of the lake, 68 miles, or else cross higher up and make any of the following ports: South Haven, Holland, Grand Haven, Muskegon, Ludington or Manistee. The usual motor boat highway across Lake Michigan from Chicago, however, is either to St. Joe or Holland, then down the east shore, and if making a leisurely trip of it, stopping at any ports of interest. Provisions, stores, etc., can be had all along this shore, so it is not necessary to load up heavily with supplies until reaching Mackinac Island.



THE IDEAL BOAT FOR CRUISING AMONG THE ISLANDS OF GEORGIAN BAY.

Dangers. — If hugging the east shore closely, be careful on coming to and rounding Waugoshance Point. In some places along here the bottom is too close to the top, so keep a good lookout and the lead going. After rounding Waugoshance Point (The Shank) it is an easy run to Mackinaw City. Mackinac Island is easily seen in the distance, and you can time your start to reach it whenever you desire. If there are any repairs to be made on your boat or machinery, have the work done here.

We need not dwell at length on Mackinac Island; everyone knows of this beautiful place. Several days should be spent on the Island. There are many places and things of interest, and good hotels, beautiful drives, golf links, and souvenirs enough to ballast the largest ship entering the port. There is one thing I want to call attention to about the word Mackinac; no matter how it is spelled, it is always pronounced Mackinaw.

Lay in your supply of stores here, fill your oil tank full, and I would advise you to carry an extra 10 gallons in a good, tight can. Your next port for supplies will be Blind River, Ont., located on the far shore of the North Channel. It is better to allow two or three days for this trip. I am figuring on the boat doing 8 miles per hour. Detour is a small village where supplies in season can be picked up; but I would not depend on getting oil after leaving Mackinac Island until Blind River, Ont., is reached, and it is even better to carry oil enough to reach Little Current. On leaving Mackinac Island we are now on our way to the Georgian Bay district. Pick your time to start. I have always found that early-morning starts got us a long way in case bad weather came on during the day. The run from the Island to Detour, Mich., carries you through the Straits of Mackinac and the north end of Lake Huron. Quite a sea can be kicked up on this stretch of water; so, as I have previously said, pick your time for this run of 30 miles. On leaving Detour we at once begin to get among the islands of Potagannissing Bay, so refer to U. S. Government chart of Lake Huron, including Georgian Bay and North Channel. The route here described should be made during daylight.

First run for Suns Point (Drummond Island); round the Point, keeping about one-half mile out, and steer between Bow Island and Rose Island, heading for Gull Island. Pass between Gull Island and Harbor Island Reef—there is lots of water midway between—and steer for the entrance to bay on Harbor Island, a little over one hour's run from Detour. This is a good place to visit, and the people living here are hospitable. Leaving Harbor Island, it is best to make for the shore of the North Channel as soon as possible; so run for Thessalon, Ont., a distance of about 14 miles, or 24 miles from Detour. A flashlight appears on Thessalon Point. There is plenty of water crossing this end of the North Channel, except around Sam Smith Rock, Gull Island and Shepherd Reef, the latter having but 3 feet of water over it. A flashlight appears on Sulphur Island, which is about one-third of the way across the Channel. On reaching Thessalon the north shore can be skirted all the way to Blind River, a distance of some 31 miles. The U. S. Government Coast Chart No. 8, North Coast of Lake Superior and North Channel, gives an enlarged scale of these waters, and I advise navigators to procure it.

The famous Mississagi River is located 4½ miles west of Blind River, and has four branches or outlets entering the big waters. It is navigable for motor boats up to the Falls, some 2 miles. There will be found here an old Hudson Bay trading post doing business, as of old, with an Ojibway tribe of Indians located opposite the post and along the banks of the river. If one wants to pick up a real Indian birch-bark canoe, this is the place to get it. There is no fishing to speak of in the Lower Mississagi.

Blind River is quite a flourishing Canadian town, supported by two large sawmills. Supplies and oil can be had here. Enter this harbor during daylight, as there are a few bad places; in fact, all this shore should be run in daylight unless one is familiar with the Channel.

The run from Detour or Harbor Island to Blind River may

THE CRUISING GROUND OF NORTH CHANNEL AND GEORGIAN BAY, UPPER LAKE HURON.

also be made direct. Use U. S. Coast Chart No. 1 of St. Mary's River and U. S. Coast Chart No. 8, North Coast of Lake Huron and North Channel, and by using reasonable precautions one will have no trouble navigating these waters.

The next port after leaving Blind River is Little Current—our objective point before entering Georgian Bay. Here all supplies—camping outfits, boats, fishing tackle, and everything necessary for outdoor life—can be procured at reasonable cost. The distance from Blind River to the Current by way of beautiful Whaleback Channel is about 60 miles. About 45 miles from Blind River is McBean's Harbor, a fine locality, with good fishing. It is well to run in here for a little fishing and to get blueberries from McBean's Mountain, and remain overnight. This run of 60 miles need not be made in a day, as there are any number of places of interest along the Channel. After leaving Blind River it will be seen, by referring to Chart No. 8, that the water is somewhat shallow; but there is plenty for a motor boat of even 5 feet draft.

A CAMP ON A GEORGIAN BAY ISLAND.

The picturesque route to Little Current is through Whaleback Channel and the narrow strait known as Little Detroit. The channel separates the northeast extremity of Aird Island from the narrow and crooked peninsular of the main land, the narrowest part of the passage being but 38 yards in width. It is said that the channel is as deep as it is wide, and I do know that we have run at full speed through it with a big steam yacht, so that there is plenty of water.

From Little Detroit the route lies through McBean's Channel, thence passing between Clapperton and Amedroz Islands and taking steamer course S. E. ⅛ S. to Narrow Light, on rounding which Little Current is opened up, situated near the extreme end of Manitoulin Island—the Pearl of Georgian Bay. This island is 110 miles long, 15 to 40 miles wide, and has an area of about one million acres. It abounds with game, its bays swarm with every known fresh-water fish, and there are now on the island, scattered in five reservations, 2,100 Indians. Especially rich in Indian lore is Manitoulin Island, tradition holding that it was both the home of the Good Spirit, Gitci-Manito, and the Evil Spirit, Matci-Manito.

The name Little Current given to this progressive and enterprising place was derived from the Indian word "Weehyabejewung," denoting the swift water which here runs in the narrow channel between Manitoulin and Cloche Islands, and which literally means "Swinging Current." If a heavy west wind is blowing, the current through the channel runs very swiftly to the east, while if the wind is in the other direction the water flows to the west. The population of Little Current is about 1,500. Three hotels are situated here, and good accommodations may be secured. There is also a telegraph office, while mail is received regularly during the summer by boat, and I would suggest that, while exploring the 30,000 islands of this locality, one has letters addressed to this place. It is one of the most charming spots on the North Channel to spend an extended holiday, appealing to those who wish to get among nature's wilds and being in close proximity to some of the finest fishing grounds in North America. For those who wish to spend their time camping in one of the most delightful regions imaginable, let Little Current be their objective point.

The fishing waters are found in McGregor, Frazier's and Whitefish Bays, some few miles from the Current. Here the large, small-mouthed black bass are numerous. The bays comprise the most beautiful sheets of water in the world, and are comparatively unknown, as few have visited this locality. McGregor's Bay is about 12 miles in length and several miles wide, and is covered with a maze of islands, there being so many that there is no difficulty in losing one's self. It is estimated that there are no less than 5,000 islands in this bay, some being only a rock with a lone tree growing from a crevice, with others many acres in extent and rich with foliage, affording beautiful sights for a camp.

No adequate description of this marvelous region can be given in this article. It must be seen to be appreciated. Land-locked channels lead between rugged, rocky promontories of all sizes and shapes, or dive into a maze of wooded islands unmarred by the hand of man. Much may be said about the climate of this region without exaggeration. The air seems to have lost the last trace of moisture, and becomes by reason of this dryness so pellucid that every object stands out as clearly as if seen through a telescope. An old Ojibway chief once said: "It is never too hot or to cold on the islands; it never blows too hard for our canoes."

On reaching Little Current, one is among the 30,000 islands, and may cruise among them with this point as a base. If it is the intention to camp for a few days, a week or a month among the islands, or go inland, make all preparations at Little Current, where everything necessary can be had. This is the nearest and best base of supplies in this region of wilderness.

Leaving the Current to get into Frazier's and McGregor Bays (a part of the former but none of the latter has been surveyed), you pass between Strawberry and Garden Islands. A light is shown on Strawberry Island. Pass between Heywood Island and Little Cloche Island, keeping close to the latter. This will bring you into Frazier's Bay, while passing between Quartz Rock Mountain and Little Cloche Island lands you in McGregor Bay, marked on Chart No. 7, "Area not surveyed." I know of no map or chart showing a survey of this locality, and can only say, keep on going, for there are miles and miles of channels among these islands of all conceivable shapes. The water is both very shallow and very deep; so go carefully until you learn the channels.

This is the motor boatman's paradise. When once you have made this trip you will go again. I have made it seven years in succession, and am going seven more if I live. The witchery of the Northland is here, and it is hard to resist.

"Come on and away from the throbbing marts
And the rush of the maddened town.
Come out to the magical land that lies
Out here, where the sun goes down."

(Continued on page 70.)

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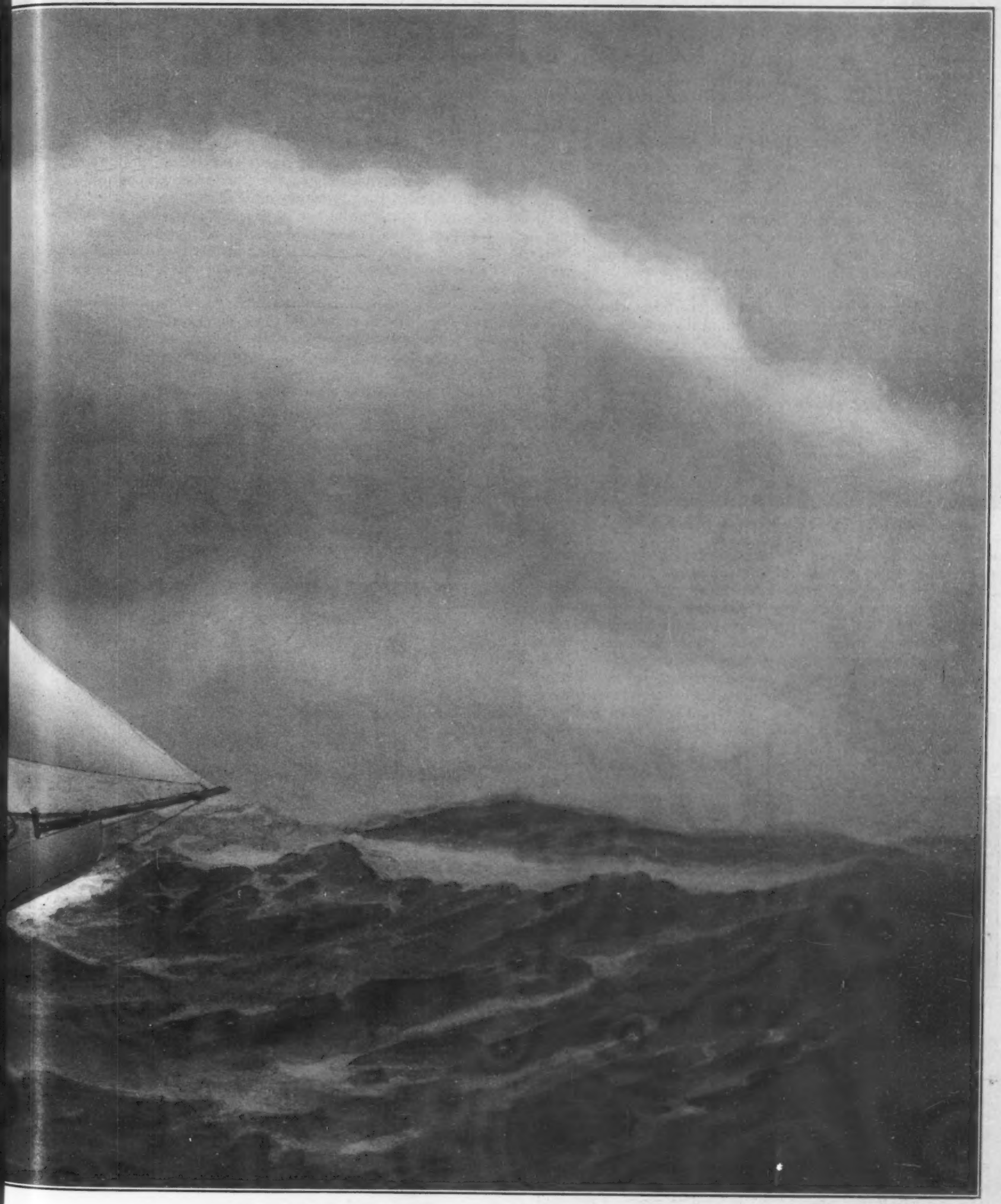


ON.

Lessons in Splicing

SOME ODDS AND ENDS WHICH AMATEURS SHOULD KNOW

By WILLIAM E. PARTRIDGE

THE splice is useful in a variety of ways, and its applicability is not limited to the joining of two ropes. That is to say, the method by which we interweave the strands in splicing is useful for several other things.

It is often desirable to finish the end of a rope neatly without putting on a whipping and without making a knot. This may be done by turning the strands back upon the rope and tucking, to resemble half a splice. The end of the rope is unlaid, so as to allow a sufficient length to tuck three or four times with enough over to work with. Put a whipping on at this point. Until one

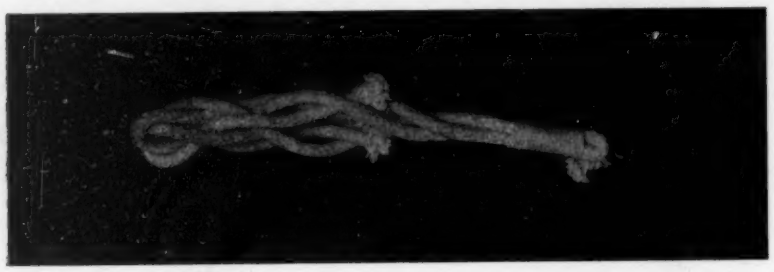


Fig. 1.—A finish for the end of a rope. Skeleton made in braided cord.

has acquired considerable skill the whipping is very important. If any one doubts of this, let him attempt to finish the end of the rope in this way and be convinced. Next, turn each end back over the next strand, untwisting it enough to prevent the formation of a hard lump at the turn, and then tuck the strand as though making a splice. After tucking once, cut out one-third of the yarns and make another tuck, and then cut another third and tuck again precisely as in making a tapered splice. If it is important to have the end go through a block, part of the strands can be cut out before the first tuck. In Figure 1 is shown a skeleton end finished in this way. It is made in a three-stranded rope of braided cord and the parts are left open, so that the course of the strands can be traced. The finished end is shown

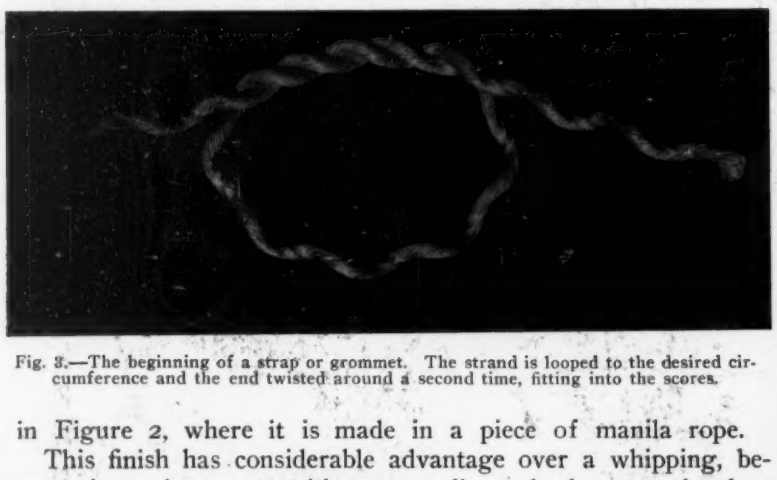


Fig. 3.—The beginning of a strap or grommet. The strand is looped to the desired circumference and the end twisted around a second time, fitting into the scores.

in Figure 2, where it is made in a piece of manila rope.

This finish has considerable advantage over a whipping, because it can be put on without a needle, and when once in place is secure. A whipping is, of course, not secure unless a needle is used to sew it fast, and even then will sometimes pull out, while a spliced end is on to stay. Cutting out yarns when the strands are first turned back, thus tucking but two-thirds the yarns the first time, makes an end that will thread through a block, if desired, for halyards, etc. If size at the end is no objection, the strands can be turned against the "lay" and no yarns cut out until the strands have been stuck the second time. This finish takes less time to make than a whipping, and has a better appearance.

When one has thoroughly mastered the short splice and the eye splice, a great many useful and ornamental things are possible about a boat. Lazy jacks, painters, grommets, straps and a variety of small things in a boat's fittings can be easily made.

This leads me to speak of the strap or grommet—a ring of rope apparently endless. To make this, take a single strand of rope three times the desired circumference of the finished strap, with ends long enough to tuck six times and something over for handling. Handle the strand carefully when taking it from the rope, so as not to disturb the scores and the natural twists. Then bring it to the proper circumference or size and put a half-hitch in it, so that the scores fall naturally into each other. Figure 3 shows how this is done and the way the parts of the strand are fitted together. The long end is now carried in and out all the way round. This makes a circle of two-stranded rope. The end is then carried right around the ring again, laying the strand into the score left by the other two strands, making a three-stranded rope, as shown in the top part of Figure 4. Continue the laying of the strands together till the rope is complete and the ends meet. The ends of the strand are then tucked and tapered precisely as one would treat the strands of a splice. The result,

Fig. 2.—Finish for end of manila rope. Ends of the strands turned back and tucked into body of rope.

after a few trials, will be a circular strap of rope in which it will be difficult to find the ends if the work has been well done.

To those readers of YACHTING who know all about ropes, knots and splices, the writer of these articles must have seemed needlessly elementary. The work was undertaken, however, for the benefit of the boys and beginners who knew but little about rope and its handling. To such the writer hopes that he has given some idea of the way the crookedest of all earthly objects may be made amenable to reason and a marlin spike.

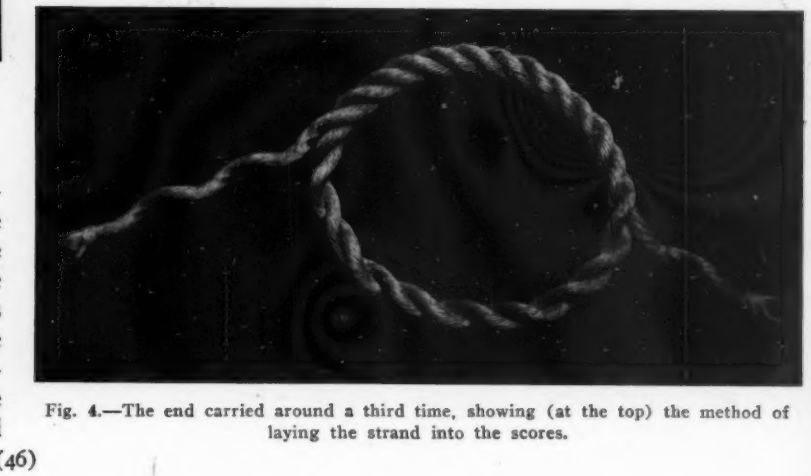


Fig. 4.—The end carried around a third time, showing (at the top) the method of laying the strand into the scores.

The Use of Oil in Heavy Weather

THE VARIOUS METHODS OF DISTRIBUTION AND WHEN IT MAY BE USED TO ADVANTAGE

By THEODORE MARTIN

REPORTS of the United States Government, Lloyds, and all marine underwriters show that hundreds of vessels are saved annually from severe damage, and in many cases from total destruction, through the use of oil to calm the seas. The efficiency of oil in preventing cresting waves from breaking aboard is well known to all seafaring men. Not only are owners and masters of vessels aware of the value of oil in this respect, but the various maritime nations fully appreciate the great saving of property and lives at times through the judicious use of oil in calming the turbulent waters.

In 1888 the Hamburg Nautical School, recognizing the importance to navigators of a better knowledge of the use of oil in preventing heavy seas from breaking on board vessels, offered a prize for the best essay on the subject. This prize was won by a Captain R. Karlowa, of the Hamburg-American Steamship Company. In 1889 the Hydrographic Bureau of the United States Navy Department issued a pamphlet to mariners on the importance of this subject, which will prove of great value to yachtsmen, especially in off-shore cruising or racing.

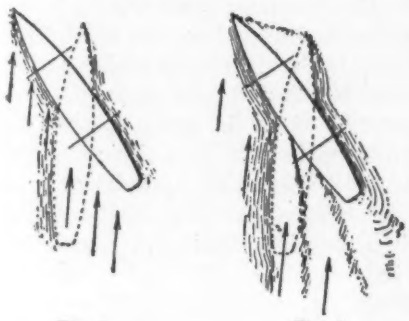


Fig. 1. Fig. 2.

Fig. 1.—Running before a gale and yawing badly. If oil is only distributed at the bow, the weather quarter is left unprotected. Fig. 2.—With oil bags abaft the beam as well as forward, the quarter is protected when the ship yaws.

The majority of sea-going vessels generally keep on hand a supply of oil for quelling the waves in unusually stormy weather. There are, in this country and abroad, oil dealers who manufacture a special wave-quelling oil; but the general opinion among seafaring men is that any animal or vegetable oil will prove as efficient as these specially prepared oils. Thick and heavy oils are the best. Mineral oils are not so effective as animal or vegetable oils. Raw petroleum has given favorable results, but not as good as when it is refined. Certain oils, like cocoanut oil and some kinds of fish oil, congeal in cold weather, and are, therefore, useless, as they do not spread out upon the water as they should; but they may be mixed with mineral oils to advantage. The thicker and heavier the oil is, the better, as it stays on top of the waves longer, and does not scatter as quickly as does kerosene or the lighter kinds of oil.

The simplest, and the usual, method of distributing oil is by means of canvas bags about 1 foot long filled with oakum and oil, with holes pierced in them by a coarse sail-needle, and held by a lanyard. The forward closet waste-pipes are also very useful for this purpose. If a bag is not handy, a ball of oakum or waste a foot in diameter thoroughly saturated with oil will serve the purpose, though it will have to be changed or replenished oftener than the bags.

The methods of placing these bags to give the best results under varying conditions are given below, and are those recommended by the Hydrographic Bureau of the United States:

In scudding before a gale, distribute oil from the bow by means of oil-bags or through waste-pipes; it will thus spread aft and give protection both from quartering and following seas. If only distributed astern there will be no protection from the quartering sea.

Running before a gale, yawing badly and threatening to broach-to (Figs. 1 and 2), oil should be distributed from the bow and from both sides, abaft the beam. In Fig. 1, for instance, where it is only distributed at the bow, the weather quarter is left unprotected when the ship yaws. In Fig. 2, however, with oil-bags abaft the beam as well as forward, the quarter is protected.

If drifting in the trough of a heavy sea, use oil from waste-pipes forward and bags on weather side, as in Fig. 4. These answer the purpose very much better than one bag at weather bow and one at lee quarter, although this has been tried with some success, as in Fig. 3.

Lying-to, to tack or wear ship, use oil from weather bow. Cracking on sail with high wind abeam and heavy sea, use oil from waste-pipes, weather bow.

In lying-to a vessel can be brought closer to the wind by using one or two oil-bags forward, to windward. With a high beam sea, use oil-bags along the weather side at intervals of 40 or 50 feet. In a heavy cross-sea, oil-bags should be hung out at regular intervals along both sides.

When steaming into a heavy head-sea, use oil through forward closet-pipes. Oil-bags would be tossed back on deck.

When at anchor in an open roadstead in heavy weather, use oil in bags from jib-boom, or haul them out ahead of the vessel by means of an endless rope rove through a tail-block secured to the anchor-chain.

If going off-shore in a small boat, it is a wise precaution to have on board a supply of oil and several bags for distributing it in case of necessity.

Many experiences could be cited of the results obtained by the intelligent use of oil. The following is an account by Chief Officer Willett, now of the S. S. Sabine, of an experience in a sailing ship when not as much was known of the effect of oil as at present:

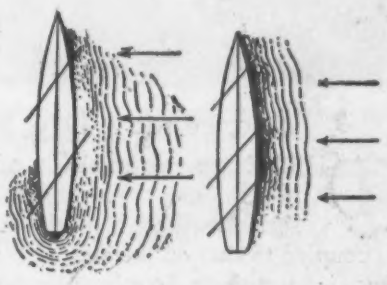


Fig. 3. Fig. 4.

Fig. 3.—Drifting in the trough of the sea, with an oil bag at the weather bow and one at the lee quarter. Fig. 4.—It is sometimes better when drifting in the trough of a heavy sea, to use oil bags forward and along the weather side.

"I distinctly remember the time we used oil on the ship Charter Oak," he said. "It was back in 1886, and we were in the oil-carrying trade from New York to Rotterdam. We were in about mid-Atlantic and got caught in a terrific Nor'-easter. The seas were breaking on board of us, carrying away everything that wasn't firmly secured, and we were having a bad time of it. We put out oil-bags over the sides, and they made things a little better, but we were still in a bad way. Encouraged, however, by the little good effect the oil-bags had, we got out two barrels of oil and lashed them firmly forward in the bows, one on each side. We bored two gimlet holes in each barrel and let the oil run. The oil flowed through the scuppers over the sides, and the effect was magical. Of course, we still had the heavy rolling and tossing, but the oil prevented the waves from breaking, which is what does the damage—the heads, or combers, breaking on board. I believe we would have foundered that time had we not used oil freely."

Captain Van der Heuvel, of the Holland-American Line S. S.

Sloterdyk, said of a recent experience he had in using oil: "I would never think of going to sea without a supply of oil on hand for use in stormy weather. The oil we use is made to order for the Line from the residue of whales and codfish, and it is efficient and cheap. We carry about 100 gallons of this oil, but in case of shortage would use engine oil. I am a firm believer in oil, and have found its effect upon the waves to be wonderful."

A former captain in the Union Castle Line tells the following in regard to the saving of a vessel's crew: "In my own experience in heavy seas in the Bay of Biscay, when taking a crew out of a schooner, I found oil most useful for the boat, as I pulled up to windward of the schooner, putting perforated canvas bags with oil in them over the side, so that the boat ran down to leeward in safety. I got the schooner to pour oil overboard also. In the meantime, I took my ship down to leeward of the schooner to pick up the boat again, and the crew was taken off and the boat saved without any damage."

In some open harbors and roadsteads of Europe which are unprotected by breakwaters pipes with holes perforated in them have been laid along the bottom. Oil is forced through these pipes and holes during heavy weather, thus reducing to a minimum the danger to shipping in the harbor.

Concerning Dry Battery Couplings

THERE are two methods of coupling dry cells that are in general use. The most common of these is known as series method. In this the center terminal of one cell is coupled to that on the side of the next one, and so on, thus leaving two terminals free, one center one and one at the side. The other, or multiple, connection consists in coupling all the center terminals together and all of the side terminals together. The series method multiplies the ability of the cells to overcome resistance, because it increases the pressure of one cell by as many cells as are used in a set. For example, one cell will give 1½ volts, four cells coupled together will give 6 volts. On the other hand, multiple connection increases the capacity of one cell by adding that of others to it. Assuming that one cell tested to 20 amperes, four cells would show nearly 80 amperes, allowing that all were of equal strength. In the former case the total amperage would be that of one cell, or 20 amperes; in the other instance the voltage would be that of one cell, or 1¼ volts. Connecting in series increases the pressure, while a multiple connection increases the capacity. Sets of four cells are coupled in series, and then the sets are connected with each other in multiple. This is a most economical method of wiring dry cells, and if for ignition purposes of a multiple cylinder motor it will give satisfactory service at a cost for current that compares very favorably with that of other chemical generators. In this way the cells will give about 50 per cent. more service than if used in separate sets, and if four sets of four were coupled in multiple, about 100 per cent. more service would be obtained than if the same number were used separately in sets of four.

Jump Spark vs. Make-and-Brake Ignition

The two forms of magneto-electric ignition in use at the present time are the low-tension, commonly known as the make-and-break system, and the high-tension magneto system, which has been developed within the last five or six years. For a while the two seemed to share public favor, but recently the high-tension has forged to the front in a marked manner.

The chief disadvantage of the make-and-break system is that it requires more mechanical parts, both inside and outside the cylinders; and these parts, being subject to constant wear, must be constantly readjusted. These readjustments require both skill and exactness on the part of the operator, often to a degree that the average owner does not possess. Most of our modern motors are built to run at high speed, and the use of this system has largely given way to the high-tension form on account of a lag in the operation of the make-and-break mechanism. It is obvious that the make-and-break rods and mechanism must weigh something, and, consequently, that their inertia in many cases will prevent their breaking contact on time. Also, in order to advance the timing more mechanism must be used. This timing is exceedingly difficult to adjust, especially on multiple-cylinder motors, so that it will be properly synchronized; that is, so that ignition shall occur in each cylinder when the piston is in the same relative position as the piston was in the cylinder that had previously fired. This is difficult to do, being an operation which not only requires great skill, but patience. With the number of working parts necessary there is always more or less wear, especially on the bushing, causing a loss of pressure.

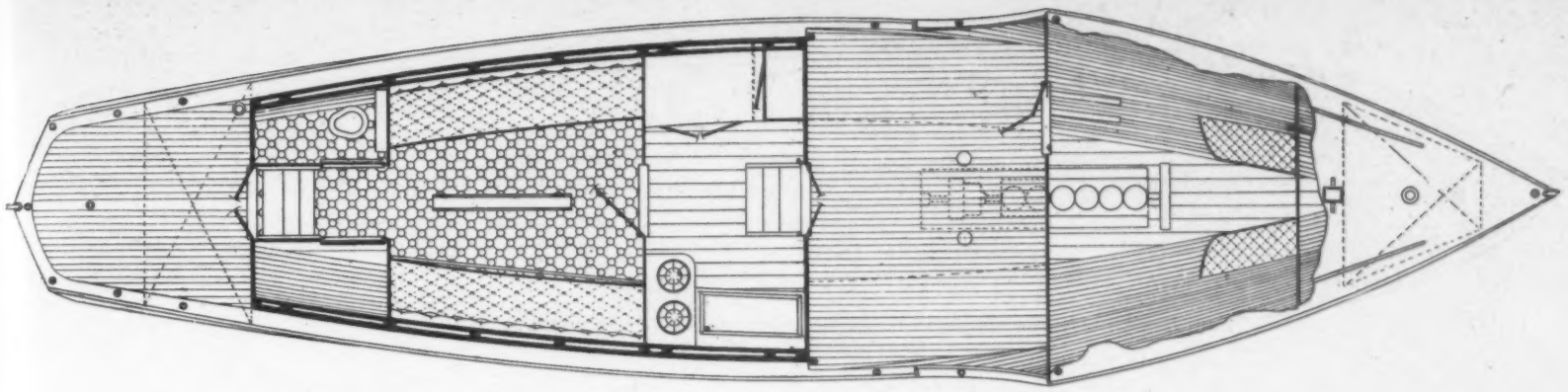
On the other hand, the system has much to commend it, especially in low-speed engines, and has many important advantages in its favor, such as absolute simplicity of the electrical system and wiring, and a very hot spark when the points are clean. It will prove very satisfactory on low-speed motors, though it must be very well constructed and adjusted to secure maximum efficiency on engines of very rapid movement. As they are building the make-and-break to-day with fewer working parts, it gives great satisfaction on the class of engines referred to above.

For Protecting the Hull from Borers or Worms

The question of properly protecting the hull in salt water is a vital one, especially in Southern waters, where the teredo, or borer, is found. There seem to be only two ways in which the hull may be protected absolutely; one of these, and the best one, is to have the hull sheathed with light-weight copper plates to a point a little above the waterline. Be sure that every portion of the underbody is protected, for if the teredo once gains an entrance, he can bore all through a large area of planking underneath the sheathing. This method is, of course, somewhat expensive, but in our Southern States it will be found to pay in the end.

The other way is to use double planking, the outer planking being thin, with a heavy layer of tarred paper or creosote laid between the layers of planking. This method is usually followed in flat-bottom boats, scows and lighters. The planks are also creosoted, but this does not seem to be a sure protection, as the teredo will eventually get in and riddle the outer planking, but will not get through the tar paper.

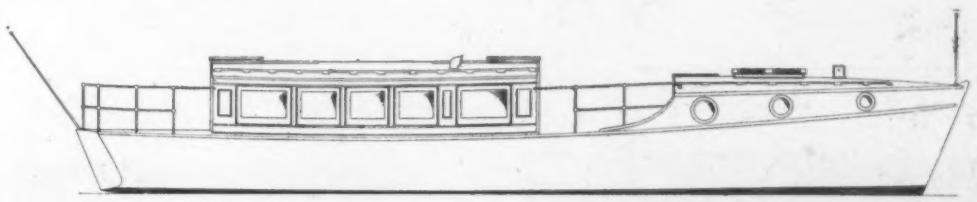
In our Northern waters it is not necessary to take this precaution, as the ordinary copper anti-fouling paints are sufficient. Occasionally worms will get into a rudder post or centerboard trunk, but keeping the underbody well painted with copper paint will usually prevent any serious trouble.



A 39-Footer for Southern Cruising

THE accompanying plans show a 39-foot, bridge deck cruiser just built by the Camden Anchor Rockland Machine Company for Mr. A. N. Hunt, of Charleston, S. C.

Being intended for use in the South, her good head room and the arrangement of her ports and drop-sash windows to insure ventilation are features which are part of a carefully worked out plan, tending toward the comfort of owner, guest and crew. She is 39 feet over all, 8 feet 10 inches beam, freeboard forward 4 feet 9 inches, freeboard aft 2 feet 8 inches. The 40-horsepower engine is expected to give her a cruising speed of 12 miles per hour. The engine is located forward in the trunk cabin, the engine room being 7 feet 6 inches long with 6 feet 1 inch head room and has sleeping quarters for the engineer. Aft of the trunk cabin is the bridge deck, the full width of the boat, and 6 feet in length. This deck is covered with a canopy. The steering wheel is located on this deck, and it is so arranged that the helmsman can handle the engine, having the throttle, spark and reverse levers within his reach.



Aft of the bridge deck comes the cabin, 13 feet 9 inches long, with a head room of 6 feet 1 inch. The forward end of the cabin is taken up by the galley. On one side of the galley is a galvanized sink, fitted with a force pump, which pumps water from a tank located aft, the capacity of which is 200 gallons. There are also the necessary lockers arranged for dishes, and a stand for the stove. On the opposite side of the galley is an ice chest, which will take 150 pounds of ice.

Aft of the galley is the main cabin, which is arranged with berths for four persons. There is also a portable table in the cabin. Aft of the cabin is the toilet room, lavatory, storage, clothes lockers and acetylene gas plant storage.

The cabin interior is ceiled throughout with cypress, finished bright. The exterior of the cabin trunk is oak, with similar finish. The trunk cabin forward is painted white inside. Outside finish is bright oak, with polished brass port lights, three on each side. All of the windows and doors are fitted with brass screens.

The 125-gallon gasolene tank is located forward, built of copper, and is set in a pan draining overboard.

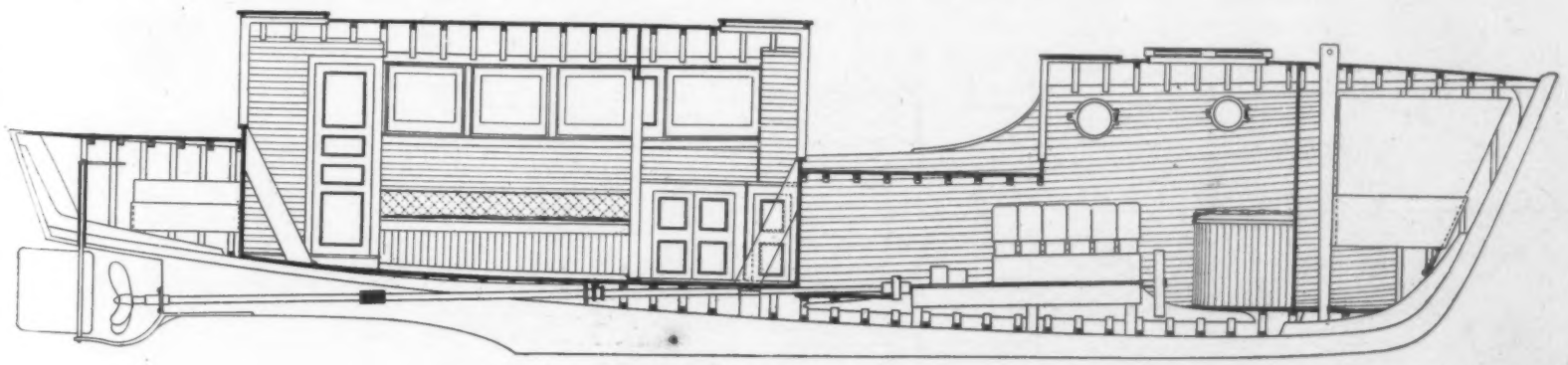
The planking is native Maine pine, copper fastened, and the bottom is covered with sheet copper. All fittings are of polished brass, excepting the awning rail, which is of iron covered with aluminum paint. The boat is fitted with an acetylene searchlight, acetylene side lights, lights in cabin, toilet and engine room.

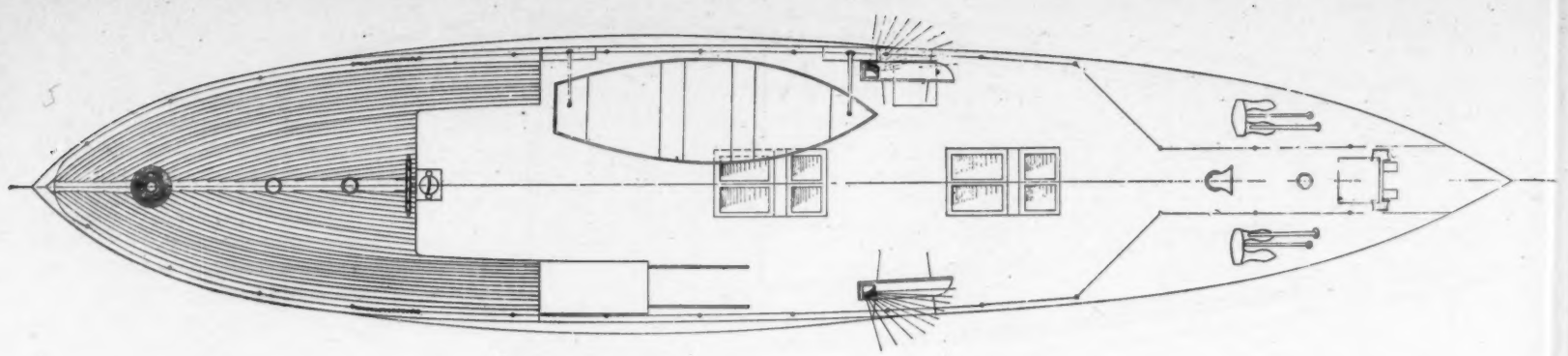
As will be observed from the layout, the crew have comfortable quarters forward, which are so arranged that they may attend to all their work aboard the boat without the necessity of going aft except when their presence is desired there.

The height of the raised deck above the floor of the bridge and the method in which the raised sides are carried aft give the steersman ample protection in all kinds of weather. The grouping of the steering and controls makes her practically a one-man boat. The generous diameter of the engine-room port lights and the ventilator in the forward raised deck insure a cool, well-lighted compartment.

The after accommodations are so arranged that the cook not only has full headroom, but plenty of space in which to move around and an unusually generous amount of refrigerator and locker room for carrying provisions, cooking utensils and tableware. The after cabin is well away from the noise and smell of the engine room, and is very comfortably arranged for living purposes.

An ideally arranged craft for day and afternoon service, she should be a very comfortable boat for longer cruises. In fact, the main cabin or saloon may be divided down the center by means of a curtain, and thus converted into two staterooms whenever this may be necessary.

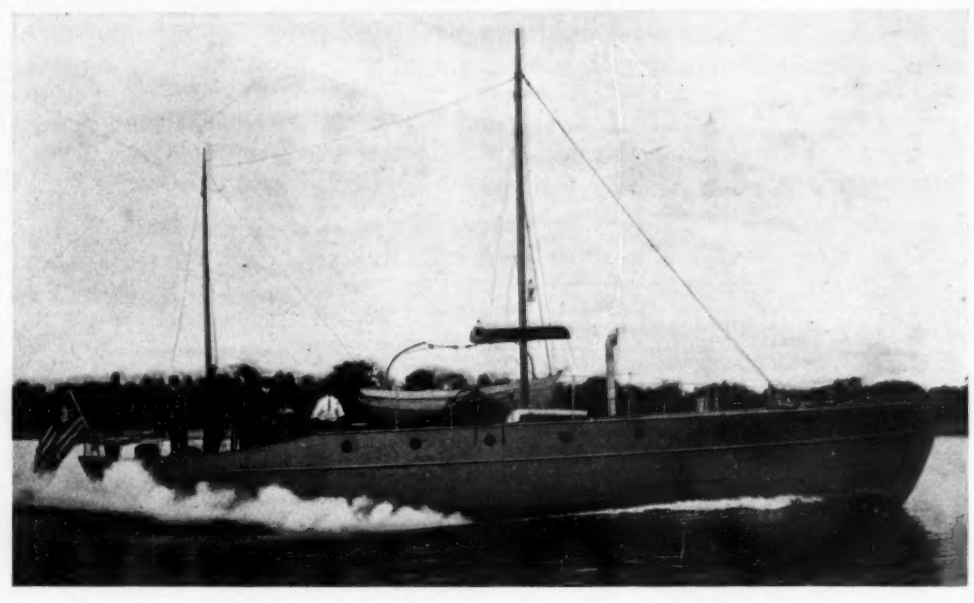




Nereides II—One of the Bermuda Racers

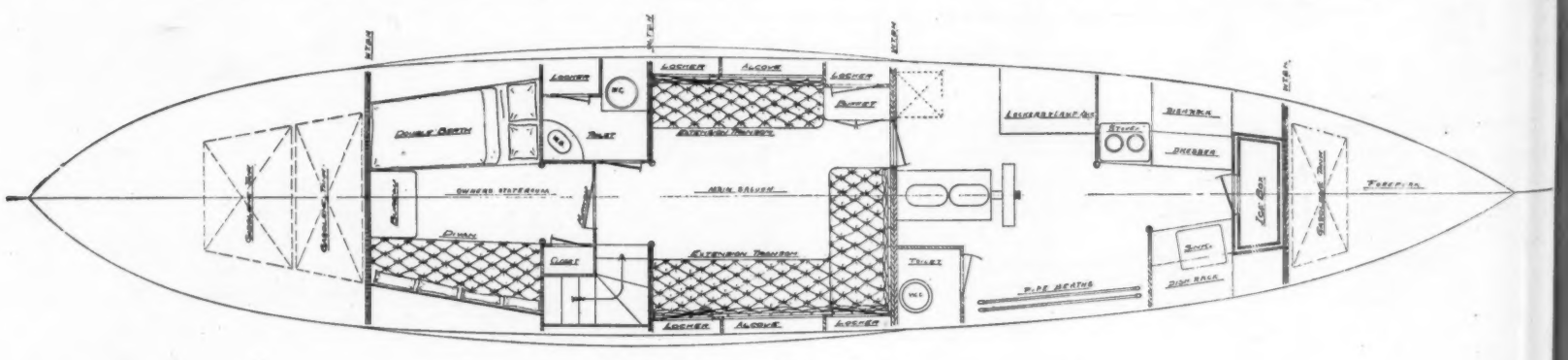
WE publish herewith plans of the 55-foot cruiser Nereides II, which finished second in the last New York-to-Bermuda race. The boat was completed and launched just one week before the start of this long, trying race, leaving but little time to get her tuned up and in condition, and her performance in the rough weather and heavy seas encountered was most creditable.

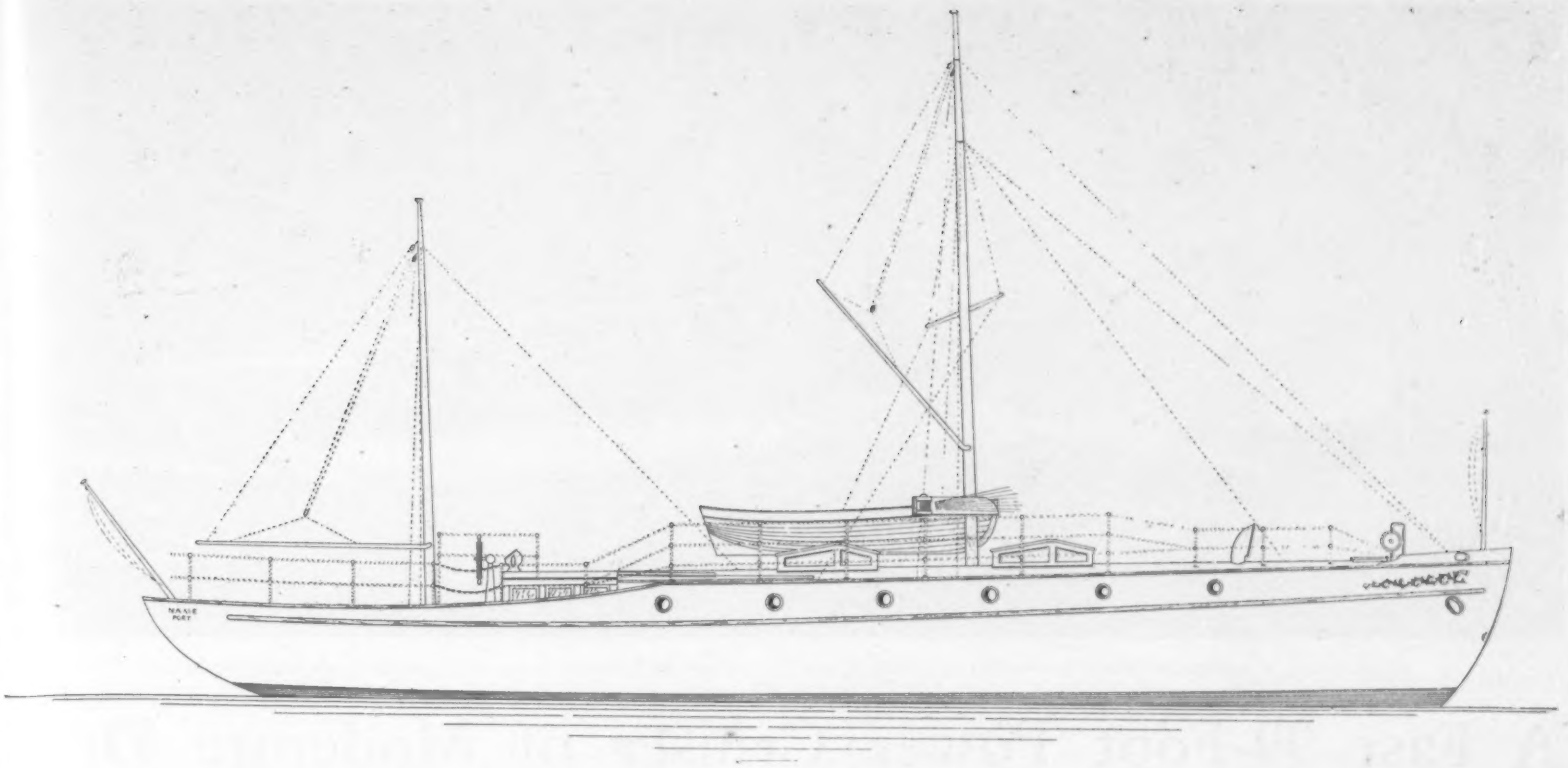
This boat was built for Mr. Francis Rogers, of Camden, N. J., from designs by Whittelsey & Whittelsey, of New York, and was constructed at the Stamford Motor Company's plant at Stamford, Conn. Her length over all is 55 feet; waterline, 48 feet 10 inches; she has 11 feet of beam, and draws about 5 feet of water, while her depth of hold is 7 feet 6 inches. The general design of this boat is of the raised deck type, which was developed by this firm some three or four years ago, and which is particularly adapted for heavy-weather work. In developing the form, it was the intention of the designers to secure a model which could be driven steadily in heavy weather. The draft is quite abnormal, and lead ballast is let into the keel. When the boat is under way in heavy weather she shows a good, average speed, as the momentum gained by her increased draft and displacement keeps her going, and the propeller will always be at such a depth as to afford solid water to work in. The construction of the hull is quite heavy, having five pair of longitudinals on each side. The machinery consists of one 40-horsepower Sterling engine, 6½ x 8 inches, turning a propeller specially designed for the purpose at 370 revolutions per minute.



The outboard profile conforms to the regular type of the Whittelsey raised deck cruisers, and the layout is the same arrangement as is generally used in this type of boat, there being a large central saloon with a stateroom aft, while engine room and galley are forward. Her construction is substantially the same as that placed in boats of this length designed by this firm, the keel being 6 x 10-inch white oak, in one length, stem and stern timbers being 8 inches, sided, and of necessary depth. The frame is of heavy steam-bent white oak, with heavy white oak floors. The planking is of long-leaf yellow pine, 1⅜ inches thick. The deck beams are steam-bent white oak, and the decking is of white pine. The raised deck is canvas-covered. This vessel has unusually good headroom, there being from 6 feet 4 inches to 6 feet 2 inches minimum. She has two watertight bulkheads, one at each end of the vessel, and a double stiffening bulkhead amidships. The steering gear is of the drum type, connected by bronze cables to the quadrant on the rudder head. The gasolene is carried in three tanks permanently built into the hull, and she also has two small auxiliary tanks on the raised deck, the total gasolene capacity being 675 gallons. She is fitted with two double-acting hand bilge pumps, and also has a bilge pump on the motor. The gasolene consumption, according to a test made just before the race, was 5 gallons per hour.

Force ventilating system was fitted to the engine room and





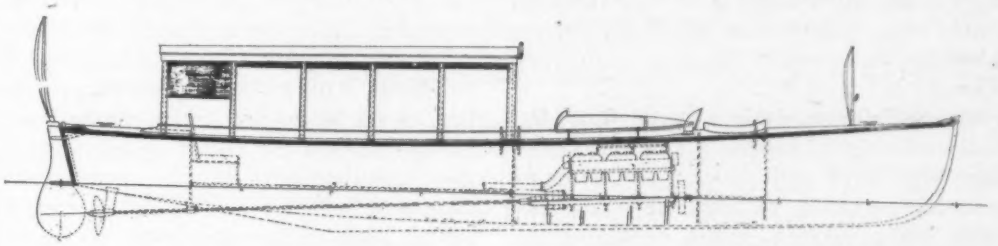
particular care taken throughout to make the ventilation of the vessel as thorough as possible when the hatches were battened down. The form of the vessel was particularly designed to make her the best possible sea boat for her length in any weather.

For the race, she was yawl-rigged, with jib, mainsail and jigger.

A 40-Foot Express Launch

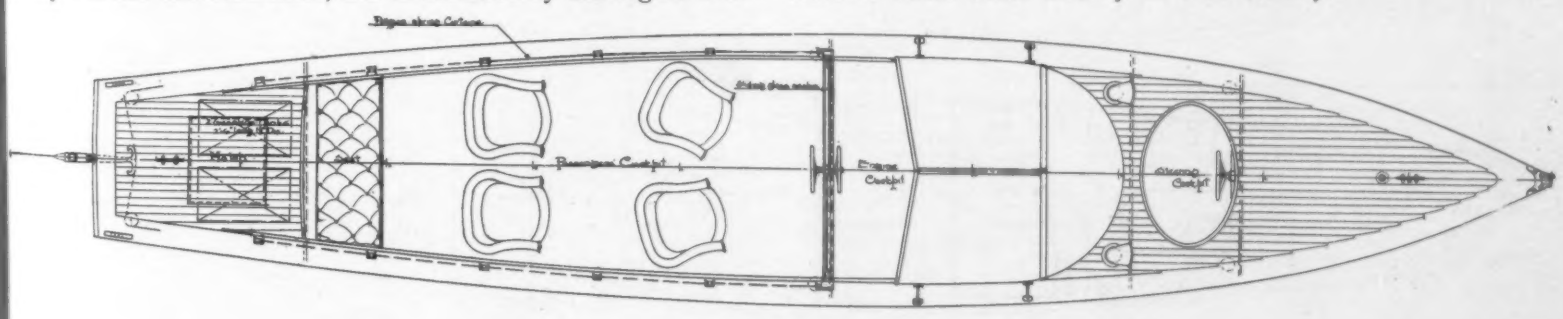
MR. PRICE McKINNEY, the owner of the Standard, which was designed by Messrs. Tams, Lemoine & Crane, is having another boat built from this firm's plans. The new launch, as may be seen from the accompanying plans, is the latest development of the popular express type runabout.

Her general dimensions are: 40 feet over all, 7 feet 6 inches beam, and 2 feet 6 inches draft. The contract has been given to the Leyare Boat Works, of Ogdensburgh, N. Y. The construction will be of the best, and while in no sense heavy, is most substantial. Her keel is of white oak in one piece; the frames are oak, one piece from keel to deck, and the planking is double, both thicknesses being of mahogany, copper-fastened and riveted. The deck is also of mahogany. The clamps and shelf are of yellow pine, and the knees and breast hooks of hackmatack. There will be three cockpits, with a mahogany combing about each. They are separated by diagonal-planked, watertight bulkheads. In all, the boat has four heavy, watertight bulkheads. The forward cockpit is for the helmsman; this is followed by the engine cockpit; abaft of this is the large owner's cockpit. At the after end of this cockpit is a removable seat, the rest of the space being left clear for chairs. There will be a standing canopy over the owner's cockpit, which will be fitted with sliding Pullman curtains on the side, and will have a two-piece glass wind shield at the forward end, which will not obstruct the view. The owner is thus protected from bad weather.



The launch, if desired, may be steered from the forward end of the after cockpit. The engineer has a steering gear also, and there is, of course, a wheel in the helmsman's cockpit.

The gasolene tanks are of heavy pressed steel, and are carefully installed under the after deck. The motor is a 6-cylinder Standard, giving a speed in excess of 20 miles per hour, and the engine bed is of elm, and is unusually heavy. Her propeller has been specially designed by Mr. Crane. The boat is well under way, and will soon be delivered to Mr. McKinney, who intends using her on the St. Lawrence River, where she will be a noteworthy addition to the fleet of swift boats already in that vicinity.



ALFREDINE IV, A 99-FOOTER WHICH DRAWS BUT 4½ FEET OF WATER, AND IS GUARANTEED TO OBTAIN A SPEED OF 18 MILES PER HOUR.

A Fast 99-Foot Power Cruiser of Moderate Draft

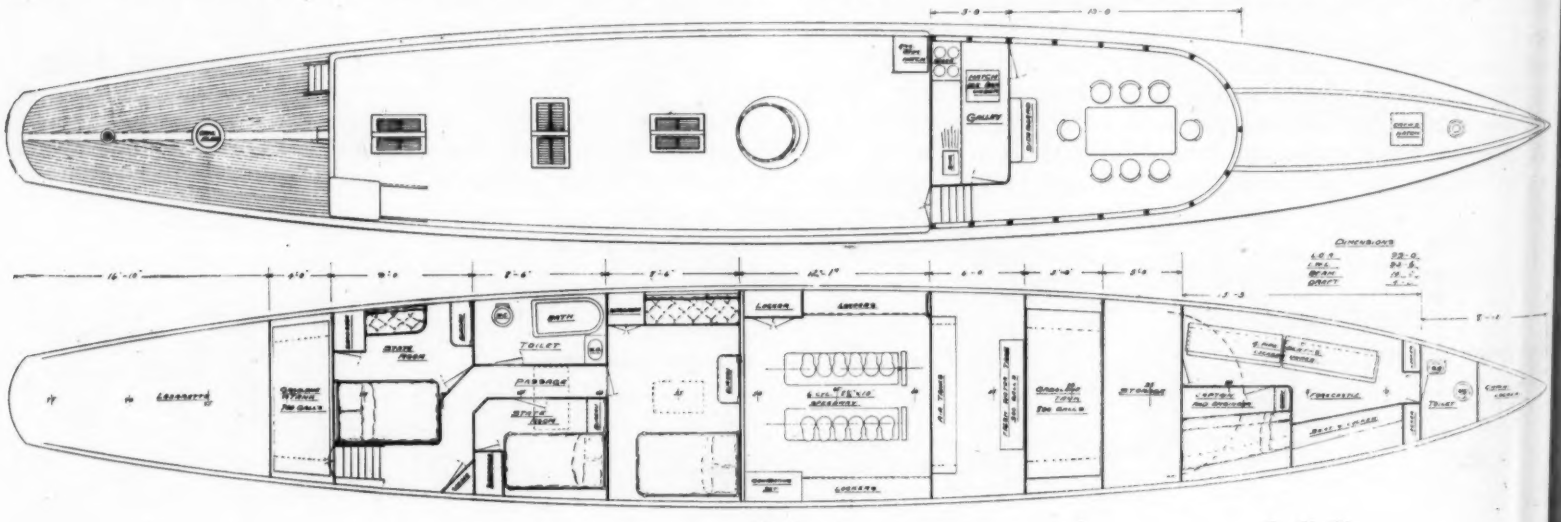
THE Alfredine IV, designed and built by the Gas Engine & Power Company and Charles L. Seabury & Co., Consolidated, for Mr. Ralph E. Slaven, of New York City, is an example of a large gasolene cruiser with ample living room, storage capacity and engine space carried on a minimum draft, which allows a wider range of cruising ground than would be the case if she drew more water.

Her dimensions are 99 feet in over-all length, 14 feet beam and 4½ feet draft. In order to obtain full headroom without an excessive and unsightly freeboard, the forward cabin is in the form of a glass-sided pilot house, and the after cabin is under a raised trunk with glass drop-windows. This arrangement makes a cool and comfortable craft for cruising in shallow Southern waters.

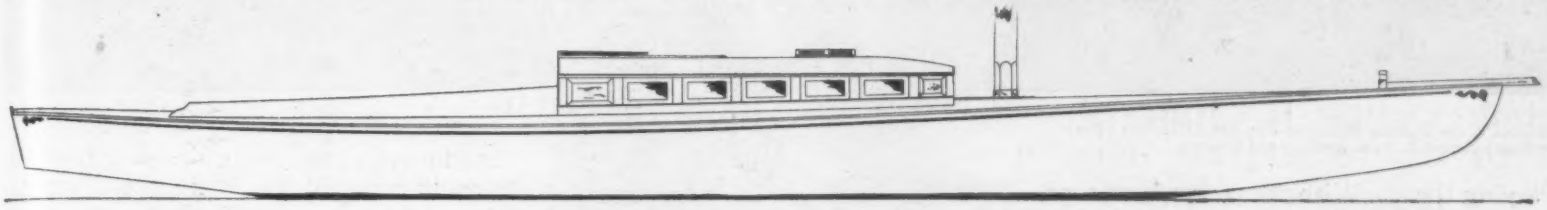
The yacht has a straight stem and flaring bow with rounded forefoot, and a typical round steam yacht stern above the waterline, while the bottom below the waterline is flat, as is customary in "Seabury" high-speed craft.

Forward of the pilot house dining-room is a turtle deck, beneath which are chain locker, crew's, captain's and engineer's quarters. The forecastle is well fitted with lockers, and contains pipe berths for four men on the port side. On the starboard side is a locker seat, convertible into a berth at night, providing accommodations for a crew of five, in addition to captain and engineer, the latter sharing a stateroom forward. The forecastle is reached through the forward turtle deck by a square hatch. The forward deckhouse contains the dining saloon, with extension table and sideboard, and is entered by a companionway leading to the bridge deck. A galley, with a four-hole stove and sink, occupies the after end of the deckhouse. Storage space and an 800-gallon gasolene tank, a 300-gallon fresh-water tank and air tanks occupy that portion of the boat below the dining saloon and galley. A particularly convenient arrangement for the storage of ice allows the hatch covering of the ice box to come up into the galley floor. Under the forward portion of the bridge deck is the engine room, in which two 6-cylinder, reversible Speedway engines, 8½ inches x 10 inches, occupy the center. Seat lockers and a compartment for the electric generating set run along the sides of the engine room, on the port side of which, forward, is a ladder leading to the bridge deck.

Aft of the engine room, and separated from it by a water-tight bulkhead, is the owner's stateroom, containing a large brass double bed to starboard and wardrobe and settee to port, with a large bureau against the center of the forward bulkhead. There is a good-sized skylight directly over the center of this cabin. From the owner's stateroom a passage runs aft, and, turning to starboard, leads to the after companionway and the after deck. On the starboard side of this passageway forward is a stateroom, with double brass bed, bureau and large wardrobe. On the port side



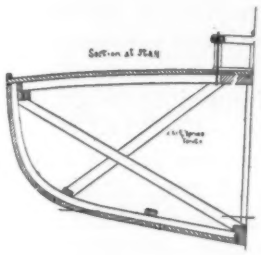
of the passage forward is a commodious bathroom. Aft of the bathroom is a second stateroom, also furnished with brass double bed, wardrobe, bureau and settee. Just aft of this latter stateroom is a gasolene tank of 700 gallons capacity. A speed of 18 miles per hour has been guaranteed. The yacht will be lighted by electricity, and will be used principally in Maine waters.

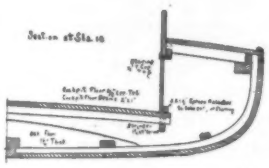


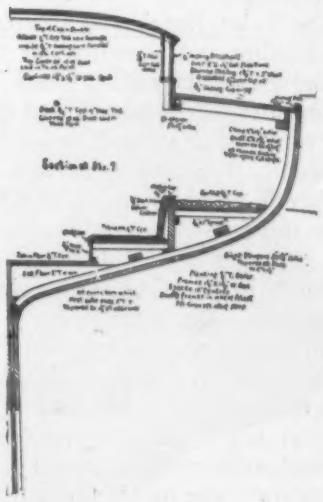
A 22-Foot Waterline Sloop

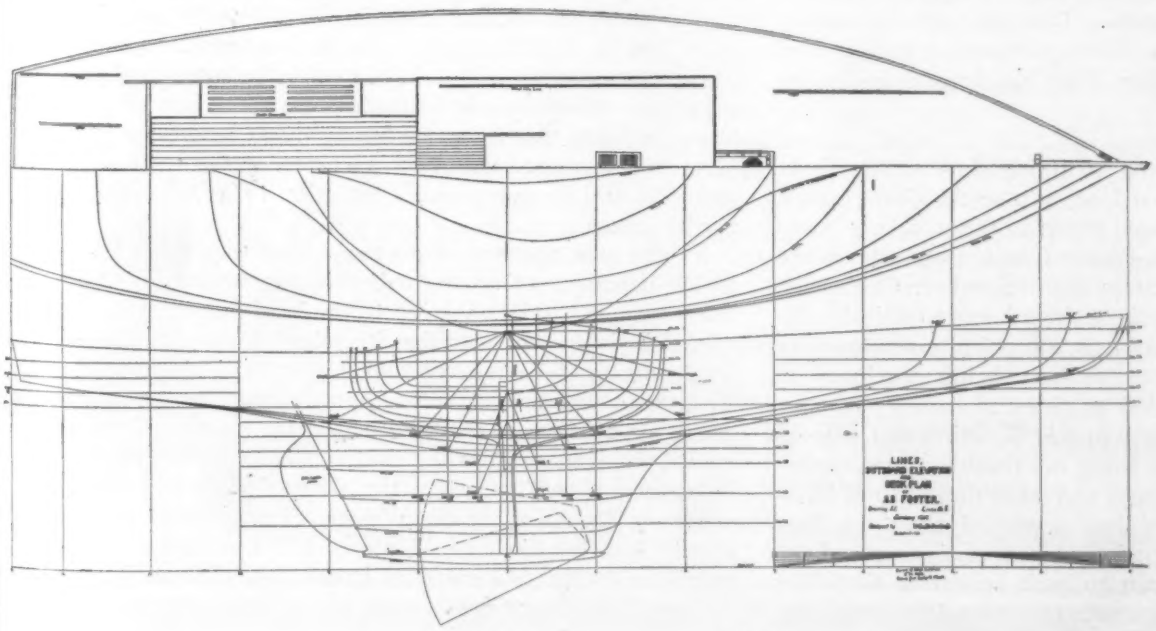
THE accompanying design of a 22-foot waterline sloop from the board of W. Scott Baxter, of Baxter & Bisbee, naval architects and builders, of Edgewood, R. I., for a Narragansett Bay yachtsman, illustrates the working out, in practical form, of ideas in regard to a boat that will combine speed and ample cruising accommodations for a crew of six, with staunch construction and seaworthiness. Her cabin will be finished in mahogany both inside and out, and she will have clothes and dish lockers of practical size. Her equipment will, of course, include ice box, stove, water tank, and everything that tends towards comfort in cruising.

The berths will be above the transoms and set back under the deck on either side. The spars and rigging will be strong, and yet light, with hollow spars, Coleman blocks, and bronze fittings throughout.









The boat will probably be raced in Narragansett Bay during the coming season, and will be pitted against the Massachusetts Bay 22-footers which have been brought around the Cape. Her dimensions are as follows:

Length o.a.	38	ft.
Length l.w.l.	22	ft.
Beam on deck	10	ft. 6½ in
Draught keel	5	ft.
Freeboard bow	36	ins.
Freeboard stern	20	ins.
Freeboard least	22	ins.
Overhang forward	9	ft.
Overhang aft	7	ft.
Sail area	914	sq. ft.
Displacement	8,108	lbs.
C.B. aft forward end l.w.l.	11.54	ft.
C.L.R. aft forward end l.w.l.	12.16	ft.
C.E.S.A. aft forward end l.w.l	10.25	ft.
Lead of C.E.S.A. over C.L.R	.084	% of l.w.l.
Area lateral plane	60.64	sq. ft.
Area midship section	11.12	sq. ft.

EDITORIAL

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Playing the Game Fair With the power boat race to Bermuda (the first big race of the season) already run, the other events will follow thick and fast in what promises to be a high-water year in the motor boat game. We have at last a harmonious national organization in practical control of the sport, from which happy state of affairs much good should result, and it now behooves the individual to throw his knife overboard and go into the game with clean hands and something beyond a determination to win by fair means or foul.

It is high time that protests, charges and disqualifications were heaved overboard off soundings. And yet in the two events of importance this year the old trouble has cropped out again—at the Palm Beach races, where a boat was disqualified for, presumably, not showing her true speed, and again at the start of the Bermuda race. There never was a race in which the contestants were as well and carefully measured as in this latter event. The committee in charge certainly did their work conscientiously, and it leaves a bad taste in the mouth, as it were, to have a protest noted (for whatever reason) just as the boats come to the line.

In nearly every important event in the past charges have been made of cheating the measurement by tampering with the motor, to conceal its true power (the motor boat offers a fruitful field to the inventive mind that is so disposed), or by the surreptitious addition of picric acid, ether, or other high explosives to the gasolene. It is astounding to read of the number of cylinders that crack during races. Men whose integrity in the business and social world is unquestioned have often stooped to tricks in racing their motor boats that they would not countenance at any other time. Their only excuse is that they believed the "other fellow" was doing the same thing.

But it is time that these methods should cease. If continued, they will bring discredit on a sport that has come to stay, if given a show. The joy of winning should not be marred by the thought that it was at the expense of honesty. I do not mean to pose as a moralist; but let us see if, in the future, we cannot go into this thing in a more sportsmanlike way than has been done in the past.

On the Pacific Coast It is hard for those of us on the Eastern seaboard, or even on the Great Lakes, to realize the strides that have been made in the yachting game during the last five years on the Pacific Coast, especially in the Northwest, along Puget Sound waters, and in Southern California.

Up to a few years ago the Pacific seaboard was practically devoid of pleasure sailing, as was, perhaps, natural in a new country with no traditions and which was too busy being developed to allow of much time being devoted to pleasure sailing; but the last five years have shown a growth in this direction that is wonderful. They have gone into the thing out there with characteristic Western enthusiasm and energy, and what they did not know they soon learned. For a while they depended upon the East for the better class of pleasure craft, but boat designing and the boat-building industry have grown to such an extent that they can practically stand upon their own feet now, and Puget Sound has turned out a young designer who has already acquired an international reputation.

They followed our lead in long-distance racing for small boats, and have outdone us by sailing one of 2,000 miles in length. With the motor boat developed first for commercial purposes, they were quick to see the opportunities it presented for pleasure and sport, and it is doubtful if there will be more entries in any event in the country than will appear at the line of some of the Puget Sound races in June and July. Motor boat clubs have sprung up like mushrooms in the protected Northwestern waters, and even on the exposed California coast, where harbors are few and far between, clubs and fleets have thrived wonderfully. Not content with protected inside sailing, several coastwise ocean races are sailed annually, while a number of one-design classes among the smaller boats have come into existence. This year a boat of Dorello type has even made her appearance at San Pedro and San Francisco.

In a region where the season lasts from eight to ten months, they have a big advantage over us in the East, and it is small wonder that those who have once sailed there feel that nowhere can the advantages be equaled. With such men as "Ted" Geary, Foulser, "Jimmy" Dean, Commodore Sinclair, the Johnson brothers and Frank Garbutt heart and soul in the game, it is sure to be guided in the right direction. Those Eastern and Great Lake yachtsmen that journey across the continent to the Alaska-Youkon-Pacific Exposition this summer have a surprise in store for them.

Learn the Pilot Rules In our May issue we printed the rules governing the inspection of motor boats which will be enforced by the government steamboat inspectors this summer. Among the various clauses was one requiring all motor boats to have on board two copies of the pilot rules of the United States. Outside of this government regulation, every man that owns and runs a motor boat should be familiar with the pilot rules of the locality in which he sails. He should not consider that he is competent to run his boat until he is thoroughly conversant with the rules of the road. He is criminally negligent if he goes out in crowded waterways without knowing them, and every accident that happens through this ignorance is a serious blow to the motor boat sport. The rules are not hard to learn, and it should be every man's ambition to qualify himself in regard to them.

At any rate, the government says that they must be on board, and it behooves every motor-boat owner to procure two copies. They may be had by applying to the local inspector of steam vessels, if he is known, or to the Steamboat Inspection Service of the Department of Commerce and Labor, Washington, D. C.; or YACHTING will undertake to supply copies upon request, if five cents for postage is enclosed. Be sure to state, in writing for copies, on what waters the craft is to be used; whether on the Atlantic or Pacific Coasts, the Great Lakes and the tributary waters to Montreal, or the Western rivers—those that flow ultimately into the Gulf of Mexico. For the Eastern District the Inspector's office is located at Room 705, United States Custom House, New York City.

THE great demand for Ferro Engines has made necessary the erection of an additional factory building. This building is 140 x 160 feet, part three stories high. It will contain a model machine shop. Our present output of 40 to 50 engines every 24 hours will be greatly increased.

While the present Ferro plant already exceeds in size all others producing marine engines, yet the capacity must be increased. We propose to maintain the high standard of workmanship and excellent quality of materials which enter into Ferro Engines. The new building will be ready for occupancy August 1. In addition to another machine shop it will also provide room for a large stock of parts for our experimental department, and a dining room for employees.

Ask the following Distributers for Information and a Demonstration.

Balfour & Calvitt - Savannah, Ga.
Loane-Hiltz Eng. Co., 306 South Hanover St., Baltimore, Md.
Bath Marine Con. Co., Bath, Me.
Angier & Co. - Boston, Mass.
F. A. Ballou, 879 Main St., Buffalo
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G. B. Hall, 30 E. Forsythe St., Jacksonville, Fla.
Star Boat Co. - Kansas City, Mo.
Jas. M. Schuck, 1160 Main St., Los Angeles
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C. J. F. Schaefer, Bourse Bldg., Philadelphia
Tranter Mfg. Co, 105 Water St., Pittsburg, Pa.
Reierson Mach'y Co., Portland, Ore.
Horton Boat Co., Rochester, N. Y.
S. P. Pankost - Sacramento, Cal.
South Engine & Supply Co. San Antonio, Tex.
Bates & Cheseborough, 612 Mer. Ex., San Francisco
Seattle Mar. Sup. Co., Seattle, Wash.
Bacon & Donnovan, Springfield, Mass.
Ware Bros. - - - - Spokane
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A. R. Williams Mach. Co., Ltd., Toronto
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FERRO Marine Engines

Made in 1, 2 and 3 cylinders from 3 to 25 H. P.
Jump Spark Ignition. 1 and 2 cylinders,
4 to 15 H. P. Make and Break Ignition.
Just the engine for any boat for work or pleasure.

Attractive Prices — Best Quality.

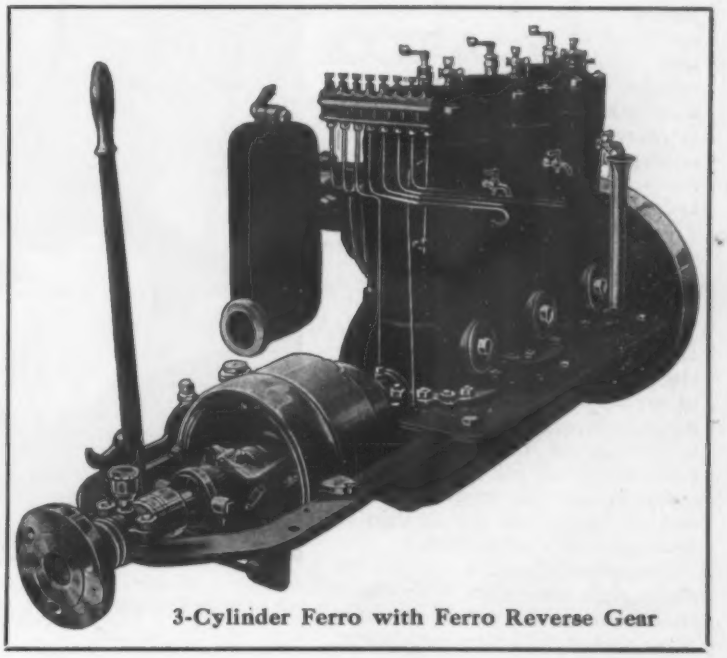
OFFSET CYLINDER

An improvement found in the highest priced automobile motors and Ferro engines.

Force of explosion exerts all turning force on Crankshaft. Gives greater power efficiency, reduces and equalizes side thrusts of piston on cylinder walls. Eliminates "knock" which loosens parts.

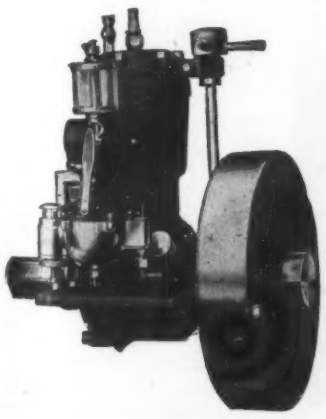
Ferro Engine Embodies Most Advanced Improvements.

Counter Balanced Crankshaft.
Successful Cooling System for any climate.
Positive Pressure Oiling System.
Efficient Ignition—Jump Spark and Make and Break.
Accessibility of Working Parts.
All Parts Interchangeable.
And others too lengthy to mention.



3-Cylinder Ferro with Ferro Reverse Gear

SPECIAL—5000 3 H. P. FERROS AT $60 EACH. Good as money can build. All improvements of standard Ferros, quantity brings down the price. Just the thing for launch, canoe, dinghy or auxiliary yacht.



Biggest Value in Reverse Gear on the Market. Ferro Gear gives positive control and a neutral point where engine runs free. Get a catalogue.

Free Catalogue describing all 1909 models upon request. Write for it.

A Practical Treatise covering design, construction, installation and operation of marine motors sold for half the cost—25 cents. 9 x 12 inches in size, 250 illustrations and diagrams, 72 pages. For the man who is not an expert mechanic. Full of helpful information which every boat owner should have.

Remember our New York Office, 44 Cortlandt St. (2d floor)
A large stock of engines. Experts in charge.

The Ferro Machine & Foundry Company

Largest Marine Engine Builders in the World

Main Offices **808 Superior St., Cleveland, O.**

Leading Boat Builders use Ferro engines. They must be good. Ask any of the following:

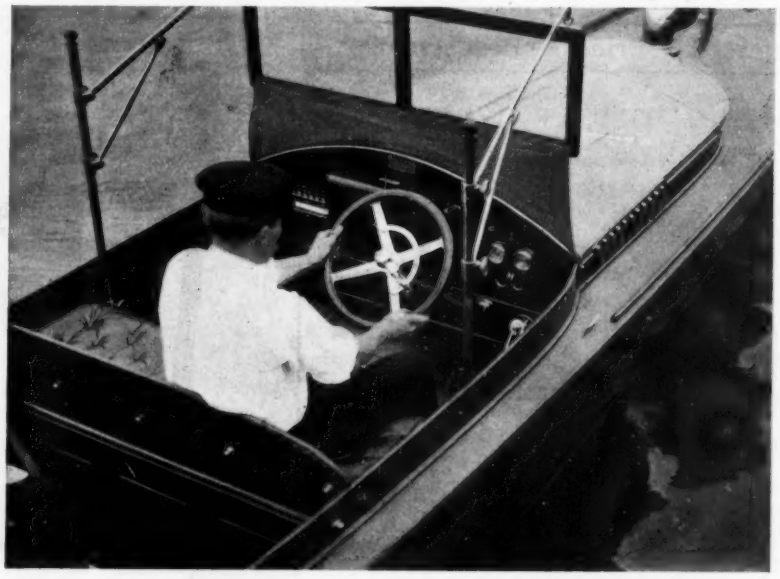
W. H. Mullins Co. - Salem, O.
Outing Boat Co., - Ashland, Wis.
Cleveland Auto Boat Mfg. Co., Cleveland, O.
Memphis Boat Co., Memphis, Tenn.
Pope Boat Co., Fond du Lac, Wis.
Rippley Steel Boat Co., Grafton, Ill.
Inland Lakes Boat Co., Lake Geneva, Wis.
W. H. Hand, Jr., New Bedford, Mass.
Niagara Motor Boat Co., N. Tonawanda, N. Y.
Pioneer Boat & Pattern Co., Bay City, Mich.
Packard Motor Yacht Co., Cincinnati, O.

Fast Pleasure Craft, Combining Speed with Comfort and Safety

A particularly able and attractive type of fast open launch is represented by the Ostrich, a 35-footer, built for Mr. Nathan Straus, of New York, by the Electric Launch Company, of Bayonne, N. J. This boat is 35 feet in over-all length, has 5 feet 3 inches beam, and makes 22.9 miles per hour.

Only the highest grade of material, with skilled labor, was employed in her construction. The keel is of white oak, with specially bent elm frames; planking of selected Laguna mahogany, with a finished thickness of ½ inch, in narrow strakes and uniform seams, secured to frames by copper rivets; all fastenings are of bronze and copper to withstand salt water. The seams of the hull are calked with special cotton, payed and puttied; outside of planking is finished in natural wood, with spar varnish. There are watertight bulkheads fore and aft, which materially assist in floating the launch in case of accident. The decks and interior woodwork are finished in selected Laguna mahogany; steam-bent quartered oak or mahogany coamings extend around cockpit, and all hardwoods are finished in four coats of spar varnish.

Accommodations are provided for six to eight passengers, with wicker chairs and upholstered divan seat in after cockpit. The operator's seat, with upholstered seat cushion and back, is just forward of main cockpit and accommodates two comfortably.



Engine bulkhead, showing gages, steering wheel, and control of 35-foot Elco-Peerless gasolene express launch.

A 60-horsepower, six-cylinder Peerless gasolene auto-marine motor furnishes the motive power, and is located forward, fully protected by a metal hood. Easy access is provided to engine compartment, all parts of the engine being accessible. The cylinders are cast in pairs, 4⅞-inch bore and 5½-inch stroke. The crank case is a single aluminum casting, with three separate compartments, designed for the greatest strength and to insure the best lubrication. The ignition systems are distinct and separate, one using storage battery, spark coil and commutator, and the other the direct-magneto system, using the high-tension Eisemann magneto. The circulation of water is effected by a gear-driven pump, the cooling water passing out through exhaust pipe at stern of boat.

Special attention has been given to the oiling system of the motor. The oil is carried through a pressure-feed lubricator, with sight feeds on bulkhead to each of the cylinders, main crank shaft bearings and crank cases. An auxiliary oil supply is provided with hand-pump and three-way valve on bulkhead, enabling the operator to fill the crank cases directly, splash lubrication being depended upon to oil connecting rods, pistons and wrist pins.

The reverse gear is of the planetary type, with internal expanding band, enclosed in an oil-tight case, and located adjacent to operator, one lever being provided for ahead, neutral and reverse positions.

A gasolene tank of 50 gallons capacity is installed under after deck, the tank being of heavy copper with pan underneath draining outboard. Propeller wheel is of special Elco design, with Tobin bronze propeller shaft with bronze bearings throughout.

A view is shown of the engine compartment bulkhead, on which are mounted the spark coil, sight feed, oil and pressure gages, the levers controlling the motor being located on the steering wheel, enabling the owner to drive the boat as he would a motor car.

Ostrich, an Elco-Peerless gasolene express launch. Length, 35 foot; beam, 5 feet 3 inches; 60-horsepower, six-cylinder Peerless motor. Speed, 22.9 miles per hour.

These boats are in no sense of the word racing machines, but fast pleasure boats, offering a combination of speed, comfort and safety. Easy chairs, wind shields and folding automobile hood assist in making the boats comfortable and efficient at all times.

The same exhilaration and enjoyment can be obtained as from a high-powered automobile, with much less danger and expense in operation, and, as stated by the company.

PETER'S

The Original

Milk Chocolate

"HIGH AS THE ALPS IN QUALITY"

stands at the summit of excellence for it surpasses other brands at every point of comparison.

More Wholesome!
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Peter's has the true chocolate flavor which appeals to everyone.

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THE BEST PART OF THE SHAVE
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POND'S EXTRACT

Relieves Irritation **Prevents Inflammation**
Assures Comfort

Used by men of discrimination everywhere. Sold only in sealed bottles—never in bulk. Write for interesting booklet on shaving,—mailed free on request.

LAMONT, CORLISS & CO., 78 Hudson St.
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EVERYTHING YOU NEED

To Eat, Drink, Wear or have Fun with AT COMMON SENSE PRICES

We are supplying a very large percentage of all the yachts (little and big) about New York, and a great many others in distant ports, with everything they need. This branch of our business has grown up rapidly and vigorously because it is founded on these two principles, which every yachtsman will appreciate:

First: We sell nothing but standard goods, and guarantee satisfaction with everything.
Second: We sell everything at common sense prices—the famous "Big Store" prices that have made us one of the best known stores in the world.

You know well enough that the average "specialist" in yachting supplies asks fancy prices for his wares. He has to do it, because his season is short—also, he has often to pay commissions to your stewards and engineers. But our season is the year around; we pay no commissions, and our fundamental business policy is TO SELL FOR AS LITTLE AS WE CAN.

We deliver all purchases free, practically everywhere, and make a specialty of "rush" deliveries to Piers and Yacht Clubs

WE SELL

Everything for the Pantry: Dry Groceries, Fancy and Staple Groceries; Fruits, Cheeses, Dairy Products. Finest Selected Hams, Bacon and Cured Meats and Fish of all sorts. Canned goods of every description—wholesale prices.

Everything for the Sideboard: Specially bottled Domestic and Imported Beers and Ales; all light Wines and Champagnes We are special agents for two or three brands of champagne, not extensively advertised, but none the less pure and good for that reason. All bottled goods and case goods at special prices.

A specially trained corps of order clerks is on duty **DAY AND NIGHT** to receive orders by telephone and telegraph. They understand their work and make few mistakes.

If you will open a charge account with us and simply write or telephone your wants, you will find that you not only save a lot of bother and time, and a lot of express charges and lugging of packages, but you will also **SAVE A FULL TWENTY-FIVE PER CENT. IN MONEY.**

If you don't care to open the charge account, have the stuff sent **C. O. D.**

You know we guarantee satisfaction with everything. Your money is given back to you, when demanded, as cheerfully as it is taken from you.

WE SELL

Everything for the Motor Boat: We are the New York agents for the Pierce engines and motor boats. All boat accessories are carried in stock and sold at prices often only **one-half** the figures asked by specialty houses. Same goods, too.

Everything for the Equipment of the Boat: Rugs, Curtains, Bedding, Mattresses, Cushions, Linoleum. Also, China, Glassware, Tableware, Etc. China decorated with Club and Private Signals.

All Sporting Goods: Guns, Revolvers, Knives, Fishing Tackle.

NO CONNECTION WITH ANY OTHER STORE

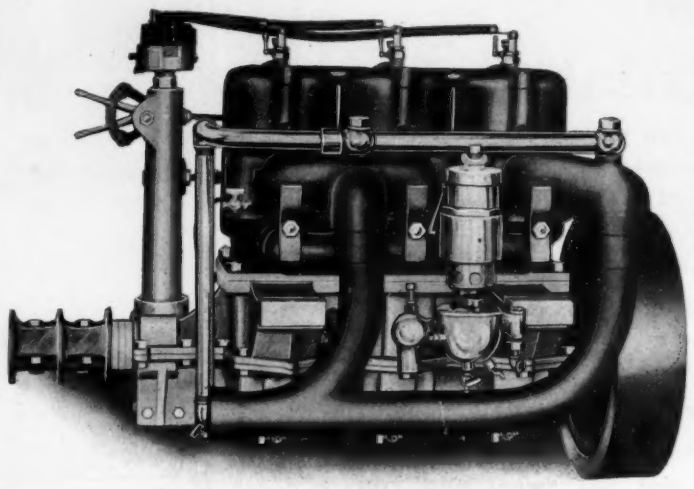
SIEGEL COOPER CO.

SIXTH AVE. 18TH & 19TH STS. J. B. GREENHUT. PRES. NEW YORK

TELEPHONE, 4000 CHELSEA

they "will serve you on water as the automobile does on land." Among other purchasers of these boats are Mr. David C. Whitney, of Detroit, Mich., whose boat, the Cythera II, has been shipped to Detroit, Mich., and will be used by Mr. Whitney on the Detroit River, between his residence at Grosse Pointe and his office in the city. The Cythera easily exceeded her guaranteed speed of 22 miles an hour during the recent test at the works of the builders. Mr. W. F. Cochran, of Woodbrook, Md., has purchased one of these boats for use at Bar Harbor, Me., delivery to be made about June 1. Mr. A. B. Jenkins, of New York, of the Jenkins Valve Company, has purchased one of the Elco Peerless express launches for use on Upper Saranac, New York. Mr. Jenkins's boat will have a small cabin, to afford protection from the weather.

Other purchasers are Mr. E. F. Payne, of Wilkesbarre, Pa., for use on Harvey's Lake; Mr. George F. Baker, of New York, a 29-foot Elco express yacht tender for use in connection with his yacht Viking, and Col. Max C. Fleischmann, of Cincinnati, Ohio, an Elco express yacht tender for use on board his auxiliary yacht Haida. Mr. H. Darlington, of Pittsburg, Pa., has purchased an Elco express yacht tender for use in connection with his yacht Elreba.



hree-cylinder Roberts motor, which gave 23.25, 30.2 and 33 brake-horsepower at 750, 1,000 and 1,200 revolutions per minute, respectively, in prony brake test.

A Powerful and Flexible Motor The racing fever has caught hold everywhere, and to meet the demands of light racing craft a powerful motor is required, not alone of extreme lightness, although that is desirable, but one that will stand hard, continuous service at high speed. Many racing motors have been built in the past, but they all have had objectionable features, one of the greatest being poor control. It is often very hard to run a racing motor slowly, and in the two-cycle type especially difficult. To run a two-cycle slowly without changing the gasolene adjustment (and even then without base explosions) is something that the experienced operator will tell you is practically impossible. One will seek far before finding a two-cycle motor capable of giving twice as much power at 1,000 revolutions per minute as at 500, and to continue beyond this speed with appreciable falling off in turning effort is still more difficult, as no experienced gas engineer will deny.

Mr. E. W. Roberts, builder of the Roberts motor, claims to have accomplished this. Base explosions, he states, have been entirely overcome by an invention which he calls the "cellular by-pass," consisting of a honeycomb filling in the transfer port by means of alternate corrugated and flat sheet steel plates. That this has been accomplished without detriment to the power of the motor is shown by recent carefully conducted brake tests. The motor illustrated herewith gave, on the prony brake, 30.2 brake-horsepower at 1,000 revolutions per minute, and 23.25 brake-horsepower at 750 revolutions per minute. Above 1,000 revolutions the falling off in pressure of the brake beam on the scale was very slight, not over 3 pounds, on a 4.8-foot brake arm at 1,200 revolutions, meaning 33 horsepower at that speed. These tests were made by Mr. Roberts in person, and were verified by carefully checking over all the measurements and by repetition of the tests many times.

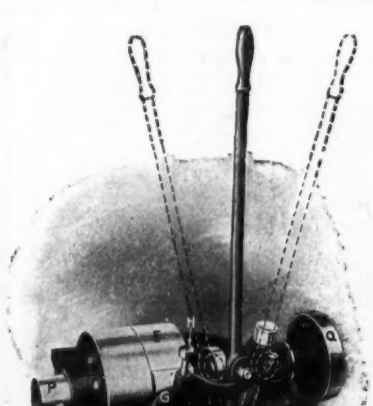


Fig. 1.—Side view of the new Ferro reverse gear.

The motor has 4½-inch bore, 5-inch stroke and three cylinders. It is fitted with the Atwater-Kent Unisparker, a gear-driven mechanical lubricator, and the control, as shown, is on the side of the timer column, at the rear of the motor. This control is so constructed that it can be placed forward on the fly-wheel end, or it may be arranged with eye levers for control at any part of the boat. This size (bore and stroke) is known as Model P, and is built in two, three, four and six cylinders, 20 to 60 horsepower. There are seven other sizes of Roberts motors in single and multiple cylinders, the smallest being 1½ horsepower. In proportion to size they are fully equal in power to the three-cylinder model illustrated herewith, as carefully conducted tests have shown.

Mr. Roberts says: "I am frequently amused by letters from wiseacres in various parts of the country, who say, 'I would buy one of your motors if they were not so fearfully overrated; I have run motors of the same size, and they do not give more than two-thirds the power you claim for yours.' I have offered these bright individuals the names of over a dozen engineers in various parts of the country who have made tests of our motors, and I never hear from them again. I recently tested a 5-horsepower that had seen hard service for two seasons, and showed 4.7 horsepower at its rated speed, or a decline of 6 per cent. I believe in rating a motor at its actual horsepower, and not in giving it a fictitious rating, which is misleading to the buyer."

The Roberts motor is made by the Roberts Motor Company, Sandusky, Ohio, in a finely equipped plant, fitted with one of the most complete testing rooms in the country, wherein every motor is run for hours before shipment, driving a propeller in a huge tank of water.

The Roberts Motor Company will be glad to furnish further information as to their motors to all those who are interested enough to write them.

A New Reverse Gear by a Well-Known Concern The Ferro Machine & Foundry Company, of Cleveland, Ohio, have added a line of reverse gears to their 1909 output, and offer them to the trade not merely as an experiment but as the result of hard, concentrated effort on their part to produce a piece of reversing mechanism that could be absolutely relied upon in all points.

In Figs. 1 and 2 the side and rear views of the Ferro gear are shown, bringing the working parts into full view. Referring to Fig. 2, *D* is the bronze reverse brake band, that is clamped in position by hand lever *G*, acting upon lever *G*. The two expander dogs *J* are separated by means of a cone sliding along the gear shaft and operated by the hand lever *G*. When these dogs are separated, thus gripping *C*, the band *D* is released and the clutch is on the go-ahead position. There is also a neutral point in all these gears; that is, the clutch releases the propeller shaft from the engine shaft, and the motor is allowed to turn free, thus allowing the operator to make any adjustments when the boat is at the dock. In starting, the motor is first set in motion and then the clutch is thrown in, a performance similar to that which takes place in the automobile.

It is not necessary, therefore, with a reverse gear to turn the propeller over in the water when starting. The successive positions of the hand lever are shown in Fig. 1. The whole gear is set in a strong cast-iron frame, fitted with both fore and aft thrust bearings, thus making the gear applicable to all makes of motors. The material and workmanship that enter into the make-up of the Ferro gear is of the highest class, thus insuring interchangeability of parts. All parts are more than sufficiently strong to withstand the wear and tear of everyday usage, this point being constantly kept in the mind of the designers when laying out the gears and conducting the experiments necessary to insure perfection in mechanical detail. The Ferro Company makes the gear in three sizes, suitable for all makes of motors up to and including 25 horsepower. Finding that an output of 50 engines a day is not "going fast enough" to keep up with orders,

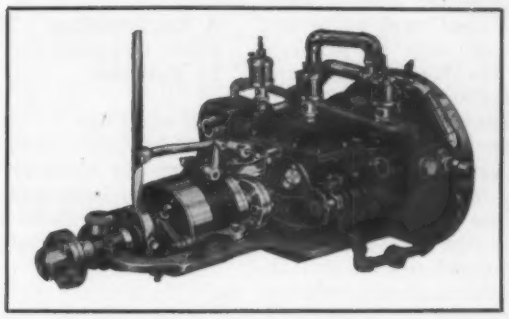
Fig. 2.—Rear view, Ferro reverse gear, showing its component parts.

Sintz

The Sintz 2 and 4 Cylinder Opposed Marine Motor

Sintz

The Perfect Power for all Marine Work

Sintz  Motor

The Sintz Motor is a long step ahead of any other marine motor built, and is the motor you have been looking for, for pleasure boat, racing boat, working boat, or auxiliary sail boat.

WHY?

Because its low center of weight materially increases the stability of your boat, making it perfectly safe in all kinds of water.

Because it is perfectly balanced, thus eliminating all vibration and causing your boat to ride as smooth as a cradle.

Because of its accessability, every part being "get-at-able."

Because it develops the rated power at a nominal speed, and has extra long bearing surfaces, insuring long life. Every motor is tested on the brake before shipping.

Because it is compact and can be placed under a locker, giving you the greatest amount of seating capacity and the cleanest construction.

Because it is the most economical motor built. If run 10 hours per day for one year it will save you the original cost of the motor in the saving of fuel alone over that used by a large number of motors sold to-day.

Because all parts are absolutely interchangeable. This insures a perfect fit, and that all repairs can be made without having to go to a machine shop to have the engine rebuilt.

Because we guarantee all parts for 2 years from receipt of motor.

Because we have confidence enough in our motors to let you try them in your own boat before paying for them.

Think it over and let us figure with you. We will treat you right. We will make a special price for 30 days on all orders coming from new territory. Built in sizes 6 to 40 h.p.

Guy L. Sintz Co. Desk B Marshall, Mich.

the Ferro Machine & Foundry Company has been obliged to add to their immense factory in Cleveland, already the largest marine engine plant in the world.

A three-story machine shop is now being erected, which covers an area of 140 by 160 feet. This machine shop will be one of the most completely equipped in the country. All the latest modern machinery and tools, including individual electric drives, will be installed. Coat closets and lavatories, as well as many other conveniences for employees, will be provided. A dining room, 40 by 140 feet, is being built. A basement, 80 by 140 feet, will be fitted up for store-room purposes. No expense is being spared to make the building in every way a model factory building.

Interior view, top of Patterson wireless battery-holder, showing automatic bridges.

Keeping a Dry Battery Dry Motor boat owners do not need to be told that fully 75 per cent of their troubles are due to faulty ignition, and will readily agree that fully two-thirds of this is due to the fact that the battery equipment on the majority of motor boats is very seldom protected from dampness, is rarely connected up so that the connections will not jar loose, owing to the vibration of the boat, and is hardly ever arranged to give that absolutely positive flow of current which is so vital to the operation of the engine.

It is an accepted fact by all motor boat owners that with a satisfactory battery holder a good set of dry cells is a most reliable standby for ignition. The Patterson Wireless Dry Battery Holder, which has been recently put on the market, was invented after a very careful analysis of the existing troubles. It not only partially obviates these troubles but entirely eliminates them, and has given complete satisfaction to all who have adopted it.

The fundamental principle of the Patterson Wireless Dry Battery System is a screw top cell, which, without wires or binding posts, screws into a solid rubber composition plate, automatically making all connections. This molded rubber plate acts as a waterproof cover to the battery box, and as all contacts are molded into it, no loose connections, bad contacts, trouble from dampness, or anything of this sort is possible. The battery cells are suspended from the plate, and do not rest on any surface where dampness can collect.

The renewing of worn-out cells is a very simple task, and is done in much the same way as the renewing of an incandescent lamp. It is not only more convenient than the old method of connecting wires, but it assures absolute and jar-proof connections. These cells can be tested easily with an ammeter without removing them from the holder.

The cabinets into which the holder fits are absolutely waterproof. Even though entirely under water, the batteries are in perfect condition and can be used at a moment's notice.

A wireless battery holder will not only maintain a set of batteries at higher amperage, but will, in a year or so, pay the motor boat owner its entire cost from the greatly increased life to each set of cells, because of the holder's scientific design for their protection and economical maintenance.

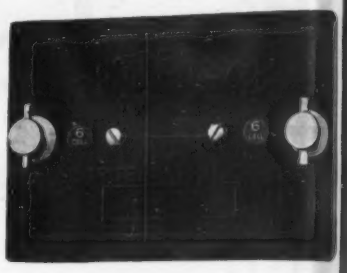
Single-strip Patterson wireless battery-holder, which may be screwed to bulkhead or in locker.

The holder is not a fad or fancy that requires careful attention or has many intricate parts. Under ordinary conditions it will last a lifetime, as all contact springs are of heavy phosphor-bronze—general phosphor—which is known to everybody as the best material to withstand climatic conditions and corrosion due to salt water.

What would seemingly be a slight objection to this battery system is the fact that cells should be of the screw-top style, and there might be some little difficulty in securing them once in a while; but to obviate this emergency clips are provided, so old-style binding-post cells can be used at any time screw-top cells are not obtainable. Few motor boat owners realize the great advantage and economy which multiple and combination outfits offer. These outfits have every advantage of the best storage set and none of the disadvantages, for they can be recharged in a moment's time by simply screwing in new battery units. Two sets of batteries connected in multiple will positively give three times the mileage of a single set, and half again the mileage obtained where one-half the set is used and the other half held in reserve. Three sets connected in multiple will give six times the mileage of a single set, and with the multiple in combination-plate outfits the connecting up is done automatically and cannot be wrong.

The Stanley & Patterson people have just issued a new booklet, which is of general interest to all motor boat owners, as it covers the pilot rules, engine troubles, ignition, wiring of batteries, etc.

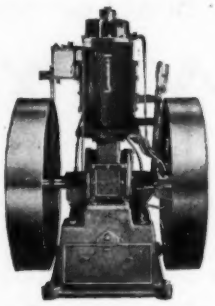
A complimentary copy of this booklet will be mailed to those of our readers who mention YACHTING in writing for same.



Exterior view, top of Patterson wireless battery-holder, showing thumb-screw and outside wire connection.

A Refrigerating Plant Operated by Kerosene Slowly but surely the old prejudice against oil engines is being overcome, and every day the oil engine is being used in places where two years ago it was impossible to place them. This is not due alone to the change in heart on the part of the public, but is due to improvements in the oil engines themselves. The illustration herewith represents the 6-horsepower oil engine built by the Remington Oil Engine Company, of Stamford, Conn., for the non-magnetic survey yacht Carnegie, to operate the refrigerating plant. This engine is of a standard type built by the above company for electric lighting and such purposes, but the material used is a non-magnetic bronze throughout, with the exception of a few small parts which would not wear well if built of bronze.

Everything about the engine is automatic, so the amount of attention required is reduced to a minimum. A few minutes in the morning for starting, and the engine takes entire care of itself until it is shut down at night. The fuel is automatically regulated by the governor; the ignition is automatic, by hot surface, which does away with batteries and all electrical troubles and delays; the lubrication is handled by force pumps, which pump the required amount of oil to each bearing. The manner in which the fuel is handled in these engines has done away with carbonization troubles, and has resulted in very great economy. The cost of operating the refrigerating plant on the Carnegie will probably not exceed 25 cents a day for fuel. These engines are being used for electric lighting plants, and are delivering the electricity for less than 2 cents a kilowatt per hour, equivalent to lighting ten 16-candle power lights one hour for less than a cent. The company also builds marine engines which are being used in yachts, commercial boats and many boats on which a strict adherence to schedule time is absolutely necessary.

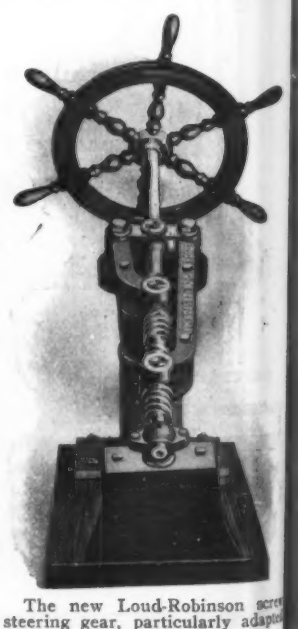


Six-horsepower Remington oil engine, which operates the refrigerating plant of survey yacht Carnegie.

A New Steerer for Small Yachts Anything new in steering gear is always of interest to the skipper, and when the novelty is brought out by a concern with long years of successful experience behind it, the new product is bound to attract more than usual attention. That is why we are illustrating herewith the Loud-Robinson Steering Gear of the Edson Manufacturing Company, of 255 and 257 Atlantic Avenue, Boston.

This is a long and short-arm gear suitable for use on yachts from 20 to 60 feet load-water line, with a solid head and wheel, which rakes at the same angle as the rudder post. The solid head is made with the screw either forward or aft of the rudder post, as desired. This screw is made of forged steel, with right and left-hand double-cut thread, which is polished in oil and emery. The shaft is brass, covered with two pairs of connecting straps in composition, and the two traversing nuts and cross-bar are also of this material.

The gear, as ordinarily supplied, is arranged to steer ship-fashion. If desired, however, it can be arranged by



The new Loud-Robinson screw steering gear, particularly adapted for use on auxiliaries.

STANDARD OF RELIABILITY SIMPLICITY

"The Automatic"

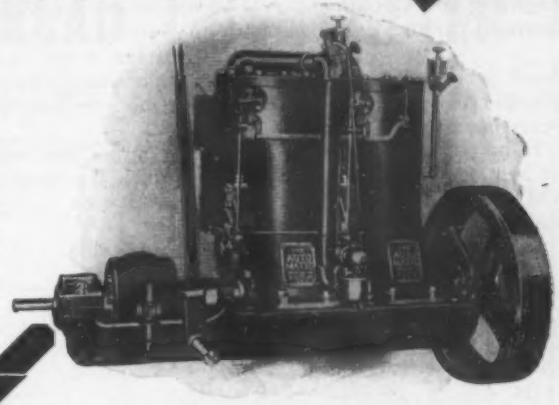
This is the sort of engine—an engine that will take you all along the coast, from one country to another, or from one continent to another, if you wish. We are not just talking, the "AUTOMATIC" has done it for others; it will do the same for you. To boost our yacht type engines, we have made a special price reduction on 6, 12, 18, 24 h.p. They are built in sizes of one to six cylinders, 6 to 150 h.p. Primarily for long distance cruising, for the man who wants to spend either his summers or winters away from home, and not put in for repairs while away.

"From Seattle to Siberia and return, without mishap," a little booklet telling of one of many trips of an "AUTOMATIC" will interest you. We will gladly send it with other of our literature upon request.

AUTOMATIC MACHINE COMPANY
BRIDGEPORT, CONN.

"The Automatic"

Automatic Machine Co., Railroad Ave. and Washington St., Seattle, Wash. (Mr. H. H. Lewis, Manager).
Automatic Machine Co., 1811 Market St., Galveston, Tex. (Mr. Jas. M. Parmelee)
P. P. Brueckbauer, Elkhart Lake, Wis.
Crescent Marine Motor Works, 116 Ferry St., St. Louis, Mo.
J. W. Enright Iron Works, 862 Tchoupitoulas St., New Orleans, La.
Henshaw, Bulkley & Co., 19-21 Fremont St., San Francisco, Cal.
King & Runyan, Pensacola, Fla.
M. J. Moran, 4262 E. 96th St., Cleveland, O.
Harrison M. Reed, So. Jacksonville, Fla.
Reierson Machinery Co., Portland, Ore.
Southern Gas Engine & Power Co., 25 Broad St., Charleston, S. C. (Chas. E. Witmack, Manager).
Chas. W. Triggs, 60 N. Canal St., Chicago, Ill.
Florida Gas Engine & Supply Co., Tampa Fla.
Wallace Bros., Norfolk, Va.
Page Engineering Co., 119 E. York St., Baltimore, Md.
Fairbanks Co., New York, Boston and Philadelphia.



Prize Cups and Trophies for Yachting
AND ALL SPORTS

AS the largest makers of trophy cups, we offer the greatest advantages to purchasers in the matter of selection and prices.

We make cups in Sterling Silver, High Grade Silver Plate, "Goldyn-Bronz," "Verde Antique" and Pewter.

These are furnished plain, engraved, etched with appropriate scenes and words, or applied with enamelled club insignia.

We will send at any time, assortments of cups to clubs or individuals on approval, for selection.

On request we send the Reed & Barton "Trophy Book," which gives illustrations of cups, sizes, prices and other information.

Correspondence invited.

REED & BARTON CO.

Goldsmiths and Silversmiths

FIFTH AVENUE AND 32d STREET
4 MAIDEN LANE, NEW YORK

REED & BARTON SILVER WORKS Established 1824 TAUNTON, MASS.

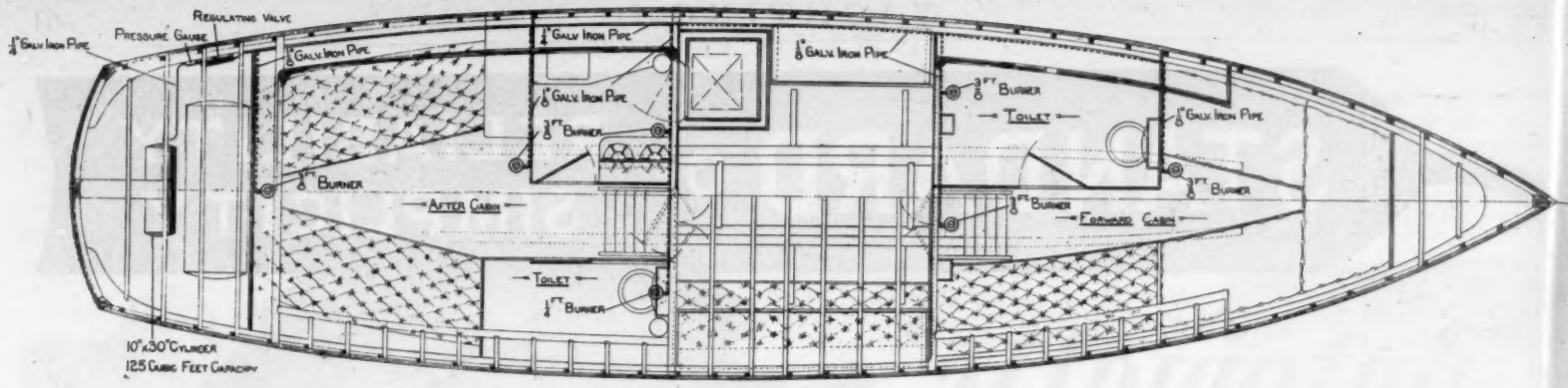


Diagram of the Commercial Acetylene Company's lighting and fuel system as installed on Margo, a 40 by 10 foot power cruiser.

reversing the position of the long and short arms to steer steamer fashion. It is made in four sizes, and is especially desirable for auxiliary yachts. The Edson Company, as is well known, are manufacturers of all sizes and styles of steering gears and wheels, and the fact that the Loud-Robinson is one of their products is a guarantee of its quality and practicable serviceableness.

Lighting and Cooking Systems for the Yacht A comparison of the comforts and conveniences of the cruiser of to-day with those of the same class fifteen years ago will bring home forcibly how we have progressed in the matter of details which were once considered impractical aboard any but the very largest steam craft a few years back.

In no particular item has so much progress been made as in the matter of heating and lighting systems, by which the yacht may be illuminated and the food cooked with safety, convenience and economy.

As an illustration of this we show herewith the layouts of acetylene lighting and cooking systems as installed by the Commercial Acetylene Company, of 80 Broadway, New York City, in Kahkin IV, a 60-foot 8-inch by 11-foot power cruiser, and Margo, a 40-foot by 10-foot craft.

In Kahkin IV a 14-inch by 48-inch cylindrical tank of 400 cubic feet capacity, connected with ¼-inch galvanized iron pipe, running along the starboard side of the boat, is tapped at convenient intervals by a series of ⅛-inch piping, connecting with eleven ⅜-foot, two ½-foot and two ¼-foot acetylene burners, the latter illuminating the sailing lights. There are also, as will be observed, connections to the double-burner galley stove and the searchlight.

In the Margo, a 10-inch by 30-inch cylinder of 125 cubic feet capacity, stowed under the after deck as in the Kahkin IV, supplies six ⅜ and one ¼-foot burners.

In this arrangement the ¼-inch main line of galvanized iron piping is carried along the port side of the boat, with the ⅛-inch connections leading along the bulkheads and under the flooring.

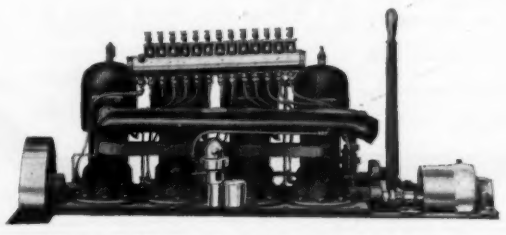
In all the Commercial Acetylene Company's installations a pressure gage for indicating the quantity of gas in storage, and a regulating valve for keeping the pressure uniform, no matter how many or how few lights are burning, are on the main pipe line, as close as possible to the storage tank.

The tank itself is easily removable for refilling, the unscrewing of a union allowing it to be disconnected. A word in explanation of the storage tank system operated by the Commercial Acetylene Company may well be in order here.

The acetylene gas is stored under pressure in tanks packed with acetone-impregnated asbestos. Acetone, having an affinity for acetylene, causes the asbestos to absorb the gas as a sponge does water, releasing it only as drawn off through the gas jets. This means that at no time is any appreciable quantity of free gas stored in the tank. When empty, the tank is uncoupled from pipe line and returned to the nearest charging station in exchange for a full one.

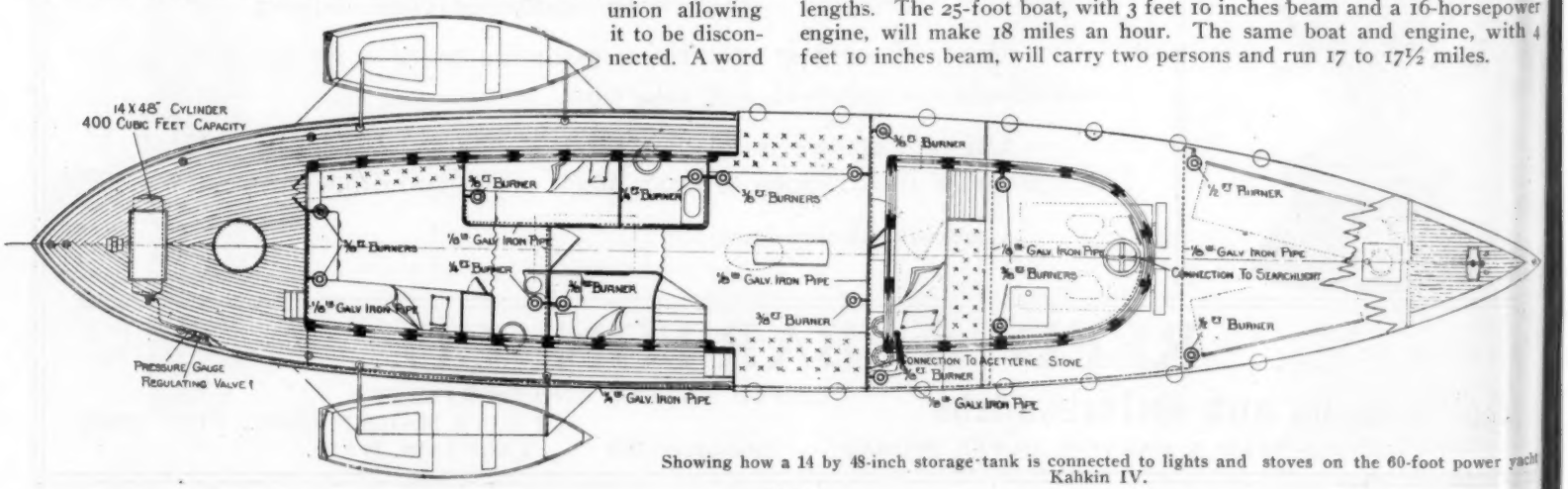
Certainly the convenience, cleanliness and safety of the system commends itself to the boat owner who wants a light cabin and freedom from kerosene lamps.

Good Boats and Good Engines to go Into Them The Rochester Gas Engine Company, of Rochester, N. Y., can justly claim to be one of the pioneers in the manufacture of gasolene engines. From the very start they began the development of an engine that, year after year, showed improvement, until to-day it stands in the front rank of marine motors, with but few equals in all-around work or in point of special contrivances for its operation and wearing qualities. This company has aimed to bring to the highest pitch of perfection three essentials that must enter into an engine to insure satisfaction and drive the fault-finder to cover—reliability, durability and fuel economy. That they have succeeded in this ambition is a fact that is well attested by hundreds of owners of Rochester engines. These engines are powered from 4 to 48 horsepower, and are so designed and built that they can be installed in any sized craft that floats, outside of a battleship or ocean liner. They are giving excellent satisfaction in many big schooners and yawls, are driving hundreds of speed boats, and propelling numerous launches and dinghies. For racing boats the Rochester engine has proved itself equal to motors of greater power, and, by its reliability and economy of fuel consumption, has scored many a brilliant victory over flyers designed especially for speed.



A four-cylinder, 32-horsepower Rochester motor. An ideal fast runabout equipment.

A few years ago the company commenced manufacturing speed boats to meet a demand for semi-speed racing, and while it was no simple matter to design a type that would meet the requirements of racing and at the same time afford the owner the comfort of a pleasure boat, experience and experiments have aided materially in the production of a fast, well-turned craft, that can be used both for racing and outing purposes. These semi-speed boats are practically a one-design type built in different lengths. The 25-foot boat, with 3 feet 10 inches beam and a 16-horsepower engine, will make 18 miles an hour. The same boat and engine, with 4 feet 10 inches beam, will carry two persons and run 17 to 17½ miles.



Showing how a 14 by 48-inch storage tank is connected to lights and stoves on the 60-foot power yacht Kahkin IV.

We have on hand in New York for prompt delivery Family Launches, Power Dories, 28-foot Sea-Going Cruisers, and a full line of the most sensible and attractive Fishing Boats, Row Boats and Canoes that ever delighted the heart of the man who knows what boats *should* be,—also Yacht, Boat, Canoe and Engine Supplies and Accessories, all at popular prices. Send for 1909 Catalogue.

1626 BROADWAY, NEW YORK
Between 49th and 50th Sts.

A 12-MILE BOAT FOR $300

This Racine 18-footer with her leather-cushioned seats for four people, and her two-cylinder 6 h. p. Racine two-cycle engine, stowed away, water and weather tight, under forward deck, will prove the greatest addition to the comforts of your summer home.

On the hottest evening, after a busy day, a run in her will cool and refresh you. Light, fast, beautifully finished. RACINE QUALITY throughout, she is the first high grade speed boat to be offered at a moderate price.

Send for illustrated catalogue describing her in detail.

RACINE BOAT MFG. CO.

Box 206
MUSKEGON, MICHIGAN

IS YOUR BOAT FOR SALE? IF SO, READ THIS LETTER

PALESTINE BOAT CLUB

ONLY MEMBERS OF PALESTINE LODGE No 357, F. & A. M. ADMITTED TO MEMBERSHIP

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EDW. C. PARKER, SECRETARY-TREASURER
180 HELEN AVENUE

DETROIT, MICH. Dec. 5 1908 190

Yachting Publishing Co.

No.20 Vesey St. New York N.Y.

Gentlemen:

In the November Yachting I ran a two inch For Sale Ad., advertising my yawl "Zigzag" for sale. I knew of course it would become known to your readers that my boat was for sale, and I also knew I would receive from you a letter thanking me for the Ad, hoping I would make an early sale etc. I was greatly surprised however, to receive on Nov.2, four replys, and up until the 6th, eleven replies. Arrangements were made for the sale and the boat accepted on the 11th. I would like to say, I could have sold two more if I had them. This is the direct results of Yachting's little Ad., as my desire to sell was not mentioned in any other way. I wish to compliment you upon the results obtained, and assure you, should I ever have another boat to dispose of I will employ your medium again.

Thanking you very kindly for the attention, I remain,

Yours truly,

Edward C Parker

YAWL ZIGZAG

ALSO THIS:

Yachting Publishing Company, New York City

Gentlemen: I take pleasure in informing you that I have sold my yacht "Marguerite" through an advertisement in your March issue. Naturally, I am pleased and wish to congratulate you on the result obtained; it has certainly been quick and to the point, and goes to show that Yachting is a valuable advertising medium. Wishing you every success, I am,

Very truly yours, (Signed) Geo. G. Bell.

Yachting is the recognized medium for the sale of high grade craft. In each number appears the month's best offerings of Sail and Motor Craft. A special rate of $1.75 per inch is made on these For Sale advertisements, and when an advertisement occupies a space of two inches or more, we will, without extra charge, make a cut from your photo of boat.

The various sizes of advertisements may be understood by referring to the following:

An advertisement occupying one inch space, ... costs **$1.75**

An advertisement occupying two inches space, costs **3.50**
An advertisement occupying three inches space, costs **5.25**
An advertisement occupying four inches space, costs **7.00**
Including making cut from photograph

An advertisement occupying six inches space, costs **10.50**
An advertisement occupying one half page space, costs **26.25**
An advertisement occupying one page space, costs **52.50**

An advertisement in Yachting will sell your boat if past experience counts for anything. Advertisements for the August issue must reach us before **July 10th.** Early receipt of matter insures more careful attention.

Address Advertising Department, Yachting - 20 Vesey St., New York

Driftwood

The Race Around Long Island

As there is just a month before the start of the ocean race around Long Island, it behooves all those who are thinking of entering and have not yet done so to get busy and send in the name of their boat and measurement to the committee of the New Rochelle and Atlantic Yacht Clubs having charge of the race.

Already about twenty entries have been received, among the latest being Fearless, Commodore B. R. Stoddard; Nutmeg, A. J. Jones, who has just won the Block Island race, and Crescent, A. G. Hill. It is expected that, once tried, the course will prove a particularly popular one. It ought to be made an annual event, and you want to get in on the first race.

The cups for the first and second prizes are now being exhibited at Reed & Barton's Maiden Lane store, where they may be seen any day. The rules require that the boats report at Gravesend Bay by 10.00 a. m. of July 30, and a tug will be at New Rochelle, Thursday afternoon, at 2.00 o'clock, to tow the boats from the Sound to the Atlantic Yacht Club anchorage at Sea Gate.

Entries should be sent to H. E. Boucher, chairman of the Atlantic Yacht Club Regatta Committee, 20 Fulton street, New York, or Geo. P. Granbery, chairman of the Regatta Committee of the New Rochelle Yacht Club, 29 Broadway. Entry blanks may be had from these gentlemen, or will be furnished from this office upon application. Don't wait to send in your entry, but do it now. Be sure to send in a certificate of your over-all measurement with the entry blank. The following boats have already been entered by their owners:

Name and Owner.	L. O. A.
Victory—Harry Jackson, Jr.	38 feet 10 inches
Intrepid—Geo. P. Granbery	40 feet 0 inches
Surprise—M. S. Kattenhorn	31 feet 0 inches
Ramallah—E. H. Tucker	45 feet 6 inches
Tillicum II—C. S. King	39 feet 2 inches
Gertrude—E. J. Cram	25 feet 0 inches
Newasi—Jones & Robinson	39 feet 0 inches
Snug—Daniel Bacon	30 feet 0 inches
Sakana—Haviland Brothers	46 feet 0 inches
Redwing—M. B. Pendas	46 feet 0 inches
Altair—H. L. Stone	33 feet 0 inches
Fearless—B. R. Stoddard	41 feet 7 inches
Nutmeg—A. C. Jones	38 feet 0 inches
Marie—Hollis Burgess	38 feet 0 inches
Alarm—Walter Burgess	25 feet 0 inches
Crescent—A. G. Hill	41 feet 8 inches

The entry of a naval cutter from the New York Naval Reserve has also been received. This is the first time that the Naval Reserve has taken part in any of these races, and the entry should add to the interest. The boat will be sailed by Lieutenant Eckford De Kay with a crew of four men, and with the known sea-going abilities of these cutters it will be interesting to see the showing that it will make.

The Atlantic Yacht Club anchorage at Sea Gate is a very convenient place for owners to reach from the city, and those who desire to take their boats down from the Sound to Gravesend Bay some days before the race will not be inconvenienced. Arrangements will also be made for witnessing the start on the morning of July 31.

Corinthian Navigation Race of the Atlantic Yacht Club

What bids fair to be one of the most popular races of the season has been planned for July 12 by the Atlantic Yacht Club. It will be from Gravesend Bay to a stake boat anchored some 125 miles off shore, the latitude and longitude being given, and the contestants will have to find the stake boat and return to Gravesend Bay.

The navigation and sailing of the yacht must be in charge of a Corinthian, without receiving assistance from professionals. Already the owners of some ten or a dozen boats have signified their intention of entering, and, undoubtedly, there will be a big fleet at the line July 12.

Following are the general conditions:

The race is open to all sail yachts of 50 feet over-all length and above, enrolled in any recognized yacht clubs.

Course.—Course will be from Atlantic Yacht Club anchorage to and around S. W. S. buoys, turning them to port, thence to stake boat anchored about 125 miles off shore, turning it to port, and return to finish line off Scotland Light vessel.

Stake Boat.—The exact location of the stake boat, giving latitude and longitude, which the yachts are to turn will be handed to contestants in sealed envelopes just before the start, and must not be opened until after the starting signal has been given.

Measurements.—The measurement for computing allowance is the length of the boat over all. The length on deck from the foreside of the stem to the afterside of the sternboard or transom.

Allowance.—The time allowance will be 17 minutes to the foot for the full course. Sloops will be rated for allowance at their full measurement. Schooners and yawls will be rated at 95 per cent of their measurement. Auxiliaries with propellers in place will also receive an additional allowance of 5 per cent.

Crew.—There will be no restrictions as to the number and character of the crew.

Classes.—If sufficient number of boats enter there will be two classes:

Class A, 75 feet and above.

Class B, over 50 feet and under 75 feet.

Prizes.—Prizes presented by Commodore Leonard Richards and Vice-Commodore J. D. Probst will be awarded as follows:

Prize for best corrected time over course, regardless of class, if three or more yachts start with full intention of finishing.

Prize for first in Class A, if three or more yachts start with full intention of finishing in this class.

Prize for first in Class B, if three or more yachts start with full intention of finishing in this class.

Also special prize for the yachts enrolled and flying the Atlantic Yacht Club flag making the best corrected time over the course, regardless of class, provided three or more such yachts start with full intention of finishing.

Regatta committee, Atlantic Yacht Club, H. E. Boucher, chairman. Office of chairman regatta committee, club house, Sea Gate, or 20 Fulton Street, New York. Telephone 5989 John.

Motor Boat Championship Trophies

At a meeting of the executive committee of the National Association of Engine and Boat Manufacturers held recently, a resolution was unanimously adopted bearing upon the time for the receiving of challenges for the respective championship trophies donated to the sport by the National Association of Engine and Boat Manufacturers. The resolution was in substance, "That all challenges for the respective trophies be received and accepted up to within ten days of the first advertised date of races for said trophies." These trophies are for the following championships: World's International, for boats of 12 meters; National, for boats over 40 feet (high speed); Inter-State, for boats 33 feet and under (high speed); Cabin Launch, for boats over 40 feet and under 60 feet; Motor Yacht, for boats 60 feet and over. Challenges for any of these trophies must be made in duplicate originals, one of which goes to the club holding the trophy challenged for and the other copy of challenge to the secretary of the National Association of Engine and Boat Manufacturers.

Puget Sound Power-boat Races

The long-distance race for power boats will start from Vancouver, B. C., on June 29, with present indications of a large number of starters, covering four regular classes from 30 feet in length up, a special class of cruisers 25 feet to 30 feet, and a special class. The course for the regular classes will be from English Bay, Vancouver, B. C., down through the San Juan Islands, across the Straits of San Juan de Fuca to Port Angeles, Wash., thence round Point Wilson down the west shores of Vashon Island, into Tacoma harbor, up the east shores of Vashon Island, finishing opposite the Elliott Bay Yacht Club's new house.

The regatta itself will commence June 30, lasting, with an interposed squadron cruise, until July 6. Dovetailed in and immediately following the sailing races will come the Alaska-Yukon-Pacific Exposition speed-boat races on Lake Washington, which are already assured of a large number of entries from various parts of the United States and Canada, and may possibly attract to the 10-meter class for the race of the world's championship some European entries.

Mackinac Race

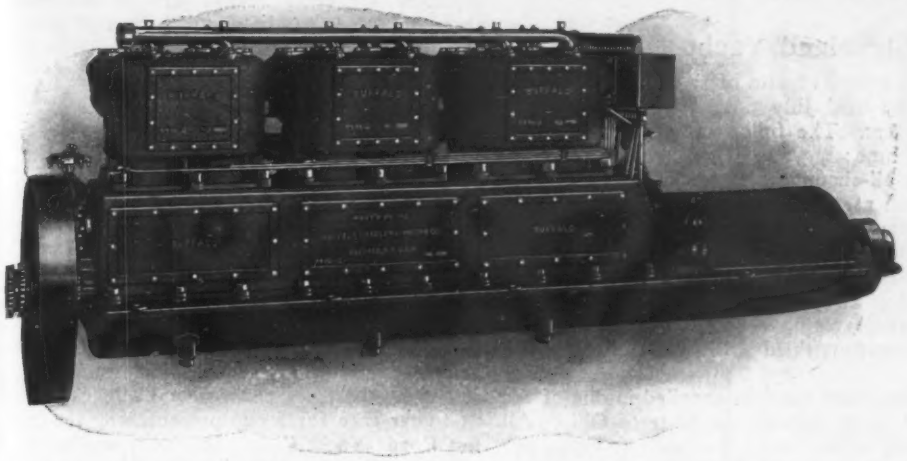
The Chicago Yacht Club announces its sixth annual long-distance race, to start on Saturday, July 24, 1909, and cordially invites entries of yachts of all yacht clubs.

This year's race will be from Chicago to Mackinac Island, Mich., the distance being 331 miles, for the Mackinac Cup, a perpetual challenge trophy valued at $1,000, to be awarded to the yacht making the best corrected time. There will also be prizes for the winners in all classes and for the yacht which first crosses the finishing line.

This challenge cup, under the conditions of its deed of gift, will remain in the custody of the club represented by the winning yacht until July 1, 1910, when it is to be returned to the Chicago Yacht Club, the title to the cup remaining in this club. A suitable souvenir shield will be given to the winner of the cup. Entries close July 14, 1909, at 6 P. M., at which time a written entry must be in the hands of the secretary of the Chicago Yacht Club, Chicago.

Many Yacht Transfers

Mr. Henry J. Gielow reports the sale of the following yachts: The 165-foot steam yacht Norman, Mr. Frank Tilford to Mr. F. G. Potter. The 75-foot flush-deck auxiliary yawl Cacique, Mr. Vernon C. Brown to Mr. Lawrence H. Armour. The 85-foot motor yacht Annette, Mr. Andrew E. Foye to Rear Commodore Thomas A. Nevins, of the Brooklyn Yacht Club. The 55-foot auxiliary yawl Truant, Mr. Arthur E. Austin to Mr. N. Hugh Cotton, for general cruising. The



BUFFALO HIGH SPEED ENGINE

The latest addition to "BUFFALO LINE"—built in 50 and 75 H. P. sizes—a High Speed Engine—but conservatively rated—a Light Weight Machine but a substantial one—an engine worthy to be sold on "BUFFALO REPUTATION."

All adaptable good features of other models and distinct and new ideas and improvements make this machine the "last word" in modern engine construction.

The "BUFFALO LINE" comprises engines for any size and for any type boat—three distinct types and a wide range of sizes. Send for handsomely illustrated 48-page catalogue—free for the asking.

BUFFALO GASOLENE MOTOR COMPANY

1260-1272 NIAGARA STREET, - - - - - BUFFALO, N. Y., U. S. A.

Member National Association of Engine and Boat Manufacturers

Your Boat Needs Something

You couldn't own a Motor Boat and not be continually wanting *something* for it. That's part of the sport But, in getting new equipment *don't* buy haphazard. Quality is more than a consideration in such purchases—it is a necessity. Sometimes defective Motor Boat fittings are responsible for serious accidents.

Obviate such possibilities. Deal with specialists, and get the advantage of expert advice. You can't go wrong if you patronize

Hopkins

"The Final Word In Motor Boat Equipment"

Nor are prices any higher at this establishment—instead greater value is given than can possibly be had elsewhere. Because nowhere in the United States is there a concern who can as well afford to make what are practically "manufacturers' prices."

INFORMATION OF RARE VALUE

For the benefit of those who are unable to visit our New York headquarters—and for the purpose of enabling them to order equipment just as intelligently—we have published a very comprehensive book. This book contains over 1,500 illustrations—numerous color plates—and full information regarding every conceivable Motor Boat device manufactured.

Out of town owners can have their wants supplied readily and profitably by having the Hopkins book at hand. This will be mailed free upon request. Write for it to-day.

John C. Hopkins & Co.

Motor Boat Outfitters 119 CHAMBERS STREET, NEW YORK CITY

225-foot steam yacht Venetia, Mr. Jesse L. Livermore to Mr. George W. Elkins (the Venetia is now in Maine waters; she was formerly owned by Commodore Morton F. Plant, who made several long cruises in her in foreign waters). The 40-foot gasolene launch Jewel, sold by Mrs. E. S. Burke to Mr. Howard S. Folger, for St. Lawrence River service. The 103-foot auxiliary schooner yacht Elfay, Mr. Russell A. Alger to Mr. Vernon C. Brown. The 75-foot twin-screw motor yacht Nokomis, Rev. J. R. Bourgeois to Mr. W. B. Chisolm. The 60-foot motor launch Silver Heels, Mr. Charles L. Sheldon to Mr. J. Rogers Maxwell, for a tender to his other yachts. The 47-foot auxiliary sloop yacht Swannanoa, Mr. Francis L. Field to Mr. George R. Newell. The 65-foot fast cruising motor yacht Vim, Mr. J. A. Mollenhauer to Mr. F. M. Alger. The Buzzard's Bay 30-footer Larrikin, Mr. Robert Bacon to Mr. E. W. MacDonald; Larrikin is about to leave for Chicago by way of the Erie Canal. The Buzzard's Bay 30-footer Zingara, Mr. Waldo E. Forbes to Mr. J. E. T. Rutter. The 55-foot motor yacht Friendship VI, Mr. Harry L. Friend to Mr. R. J. Preston. The hunting cabin cruiser Philippa, to Mr. C. Leland Harrison. The power cruiser Peggy, for Mr. Robert G. Frazer to Mr. M. R. Jones. The 40-foot sloop yacht Adyta, Mr. Richard Von Foregger to Mr. George S. Clarke; the boat has been shipped to Chicago, and will be used for racing and cruising on Lake Michigan. The hunting cabin launch Dorothy R., Mr. M. R. Jones to Mr. J. S. Sheldon. The auxiliary yawl Kathleen, Mr. R. S. Pike to Mr. C. F. Brenner.

The following yacht sales have been made through the office of Stanley M. Seamon, 220 Broadway, New York:

The knockabout Mayanni, sold by Mr. Karl Dodge, Philadelphia, Pa., to Mr. M. D. Truesdale, Greenwich, Conn. The yawl Hobby, sold by Mr. William L. Marston, New York, to Mr. Karl Dodge, Philadelphia, Pa. The power houseboat Keewaydin, sold by Mr. Morgan Colt to Mr. Carl T. Kuchler, New Rochelle, N. Y. The high-powered express cruiser Zip, Mr. C. W. Lee to a member of the New York Yacht Club.

Mr. William P. Kiggins reports the following sales:

The 38-foot sloop Saginaw, by John T. Rainier, of New York, to George James, of Bayonne, N. J. The auxiliary knockabout Fraulein, by Frank H. Macy, of New Bedford, Mass., to Amory Leland, Jr., of New York. The hunting cabin launch Pollywog, by Norris N. Mason, of New York, to Charles W. Hand, of New York. The 22-footer Peri II, by William J. Rooks, of Providence, R. I., to James S. Bradley, of New York, who will race the boat on Gravesend Bay the coming season. The auxiliary yawl Gulnare, by Blanchard Atkinson, of Brooklyn, N. Y., to John C. Marsellus, of Syracuse, N. Y. The 76-foot power cruiser Wayward, by Lillian A. Stuart, of Larchmont, N. Y., to Vice-Commodore Thos. A. Nevins, of the Brooklyn Yacht Club. The Burgess-Lawley 40-footer Chiquita, by Edmund Fish, of New York, to Arthur J. Hamblen, of New York. The Burgess-Lawley 40-footer Choctaw, by Robert Henke, of New York, to Dr. Jas. D. Trask, of Highlands, N. J.

The following boats have been sold through the agency of B. B. Crowninshield, of Boston, Mass.:

The 18-foot knockabout Ousakis, owned by F. W. Hastings, of Boston, to Walter Pendleton, of New York City. The 22-foot knockabout Mariposa, owned by Samuel K. Rindge, to George M. Amerige, of Boston. The 25-foot sloop May Queen, owned by E. L. Whittemore, to J. C. McCoy, of Providence, R. I. The 25-foot sloop Calysta, owned by Arthur Willis, to F. A. Barnes, Providence, R. I. The Q class boat Essex, owned by Arthur Stevens, of Boston, to J. B. Nichols, of New York City.

News of the Yacht Clubs

Cleveland Yacht Club

The first annual regatta of the Cleveland Yacht Club will be held July 3, 1909, and promises to be a big event. The following events will be on the programme:

Free-for-all-championship, 15 miles; all boats start scratch at 2.30 P. M.

Consistence-performance handicap, 15 miles; all boats start at 4.30 P. M.

Prizes.—Free-for-all-race; city of Cleveland championship flag for 1909.

Consistent-performance race; first prize, $30; second prize, $20; third prize, $15; fourth prize, $10.

Competing boats must be enrolled in one of the recognized yacht clubs of the State of Ohio. All participating boats must average 16 miles per hour or be disqualified. Full direction and control of the races rests with the speed-boat racing committee, and all questions and disputes shall be decided by it.

No entry fee will be charged. Entry blanks may be had from secretary of Championship of City of Cleveland Speed-boat Committee, and must be filled out by the owner or a credited representative of the entering boat. No entry will be received later than 12 o'clock noon, on Friday, July 2, 1909.

First Race of the Cedarhurst Y. C. One-design Boats

The Cedarhurst Yacht Club was formally opened recently by a race among the one-design sloops belonging to the members of the club. These boats were designed by Cox & Stevens, and their dimensions are: Length over all, 22 feet; waterline, 15 feet; beam, 6 feet 6 inches; draft, without board, 1 foot 11 inches.

There are twelve of these boats, and eight of them came to the starting line. The race was over a course of about 7 miles in Lawrence Inlet, directly in front of the club house. The start was a one-gun start, and the boats got away promptly at 10.30, the race being over by 12.30. All eight boats finished within an interval of less than four minutes, showing how close the racing was. The first three boats to cross the finishing line were in the following order: Moustique, Montague La Montagne; Wayward, E. de F. Lord; Teal, A. L. Norris.

The yacht club was organized last winter by members of the Cedarhurst, Lawrence and Woodmere colonies, and promises to be a very successful organization. Its membership list at present is about 150, most of them being also members of the Rockaway Hunting Club. The conditions for racing are good, as the club has available not only the inside course used yesterday, but in good weather will sail its races in the ocean, Lawrence Inlet being easy of access except in heavy weather.

Motor Boat Races—July and August

Motor Boat Races will be held under the auspices of the Bridgeport Yacht Club, July 5, 1909. For full details and entry blanks address Mr. Charles L. Gulick, care of American & British Manufacturing Company, Bridgeport, Conn.

Lake Champlain Tercentenary Races, at Burlington, Vt., Tuesday, July 6, 1909. Races for all classes of motor and sail boats. Apply for entry blanks and information of Mr. J. E. Traill, secretary of Naval Committee, Burlington, Vt.

Race for Cruising Motor Boats, held under the auspices of the Rochester Yacht Club, Port of Charlotte, Lake Ontario, August 12, 1909. Application for entry blanks and all information should be made to Mr. Clute E. Noxon, secretary Rochester Yacht Club, No. 307 Livingston Building, Rochester, N. Y.

On Chesapeake Bay

The Capital Yacht Club, Baltimore Yacht Club, Chesapeake Bay Yacht Club, of Easton, Md., and the Hampton Roads Yacht Club have arranged a rendezvous and joint cruise this summer. The program decided upon is for the four clubs to meet at Solomon's Island, Patuxent River, July 18, July 19, sail for St. Michael's, Eastern Shore, Md., during which run there will be a yawl race, Drum Point to Tilghman's Point, for a cup presented by the Chesapeake Bay Yacht Club, and a 21-footer race for a cup presented by the Hampton Roads Yacht Club. July 20, reception to the clubs at Easton, Md., by the Chesapeake Bay Yacht Club. July 21, annual regatta, C. B. Yacht Club, and working boat races.

July 22, the four clubs leave St. Michael's, Md., for Annapolis, yawl race for a cup presented by the Capital Yacht Club, Washington, D. C., and 21-footer race for a cup offered by the Baltimore Yacht Club.

Newport Yacht Club

RACE MEET FOR MOTOR BOATS, AUGUST 11, 12, 13, 1909.

Members of all regularly organized yacht and motor boat clubs in the United States, Canada and Europe are invited to enter their boats in the race meet to be held on August 11, 12, 13, 1909. There will be the following events:

Wednesday, August 11. 7.00—Long-distance race for Rudder Trophy. 10.00—Cruisers under 30 feet, 10 miles, handicap. 11.15—Racers 25 feet and under, 10 miles, handicap. 11.30—Cruisers 40 feet and under, 15 miles, handicap. 2.30—Cruisers over 40 feet and under 60 feet, 15 miles, handicap. 3.00—Cruisers over 60 feet, 15 miles, handicap. 3.30—Racers 32 feet and under, 20 miles, handicap.

Thursday, August 12. 10.00—Free-for-all for cruisers 40 feet and under, 15 miles. 10.30—Free-for-all for cruisers over 40 feet, 15 miles. 11.30—Racers 40 feet and under, 25 miles, handicap. 2.30—Free-for-all for cruisers 25 feet and under, 10 miles. 3.00—Free-for-all for racers 32 feet and under, 15 miles. 3.45—Free-for-all for racers 30 feet and under, 25 miles.

Friday, August 13. 10.00—Free-for-all race for auxiliary fishing cat-boats around Gould Island. 10.30—Consolation race for racers (handicap) that have not won an event. 3.00—Free-for-all race for racers of unlimited length and power for the Newport Cup, 30 miles. Classes for hydroplanes will be arranged provided the number of entries are sufficient.

Albany to New York Motor Boat Race

The Albany Yacht Club has completed arrangements for the Capital to Coast motor boat race over a course from Albany to New York. The Marblehead conditions, modified to suit an inland course, were adopted. The race will be open to cruising power boats not exceeding 40 feet over all. All freaks and speed machines will be barred, the committee reserving the power to refuse an entry if in their judgment the boat is not a legitimate cruiser.

The race will start at 4 o'clock on the afternoon of July 5, from off the Albany Club house, and the finish will be off the Colonial Yacht Club house, this city.

PAR or SCRAP
Next Year

In Gas Engines, one gets about what he pays for, and it is useful for about as long as he has paid for its use. To some extent the price indicates whether the engine is to run the second and fifth and tenth years or be scrapped.

Therefore, Leader engines are really the most economical. *Worth par next year, too.* Leaders were the first Double Opposed Horizontals made for Marine use. They have improved—very considerably. They have merited the trade name—*Leaders.*

You may have "our side of the story" in a clear, well illustrated catalog if you are interested in a well-built, compact, *economical*, accessible, *non-vibrating* engine. If you will intimate your probable requirements we will be pleased to send quotations with the catalog.

MAY WE BE OF SERVICE TO YOU TODAY?

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GRAND RAPIDS, MICH.

Southern Office, 340 Carondolet Street, New Orleans

SHIPMATE RANGES

8 SIZES 11 STYLES

Here's to the Shipmate,
The ready, steady Shipmate,
The Shipmate that's a friend to you and me.
Here's to the Shipmate,
The true and trusty Shipmate,
If we couldn't have a Shipmate
We wouldn't go to sea.

THE STAMFORD FOUNDRY COMPANY
Established 1830 STAMFORD, CONN.

THE
KLAXON

(TRADE MARK REG. PAT. MARCH 31,1908 OTHER PATENTS PENDING

"The X Ray of Sound"

APPROVED BY DEPARTMENT OF COMMERCE AND LABOR

The Department of Commerce and Labor approves and endorses the Klaxons :—

Because the Klaxons are the only **mechanically operated** motor boat signals that may be relied upon for blasts of any desired duration absolutely independent of how long the engine has been stalled.

The Klaxon is operated by a powerful electric motor and starts off with a full-grown, long-carrying roar as soon as a button is pressed.

The Hand Klaxon is operated by a crank handle and is the only powerful signal which can be operated on board a sailing boat without the installation of pressure tanks or batteries.

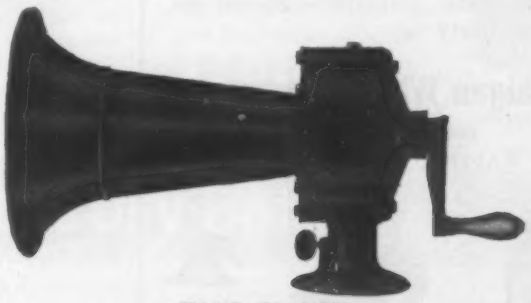
It is compact and absolutely waterproof.

Once heard the Klaxon note is never forgotten. It is different from that produced by any other signal and has the volume and power behind it to carry through a fog bank or in the teeth of an opposing gale.

Deck Type KLAXON

This shows the powerful electric motor which operates the KLAXON.

We have just published a booklet descriptive of the Klaxon and this booklet is as different from the usual catalogue as the Klaxon is different from any other signal system. A copy will be sent you on request. Mention Yachting.



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Manufactured by

LOVELL McCONNELL MFG. CO.
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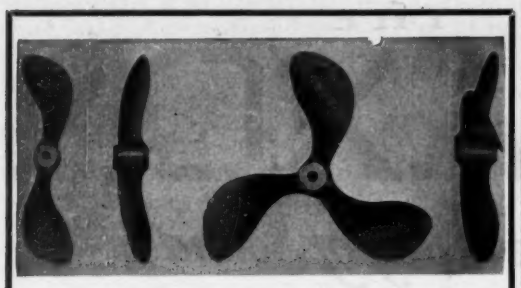
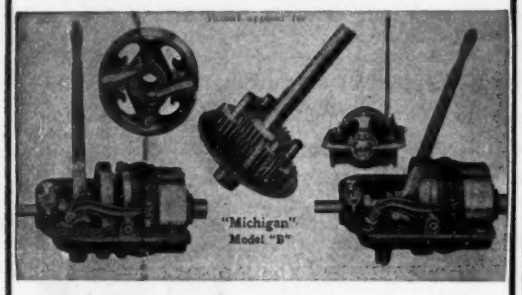
THE KLAXON COMPANY
3 MADISON AVENUE, NEW YORK CITY



Speed Propeller Wheels

Reversible Wheels



Reverse Gears

NOTICE

To the Motor Boat Users

Now is the season for overhauling and refitting your boat.

Our sixty-page catalog free, showing complete lines of Reverse Gears, Speed Propeller Wheels, Attractive Modern Marine Hardware Air Pumps, Whistles and Under Water Exhausts.

Every person interested in boats should have our Catalog.

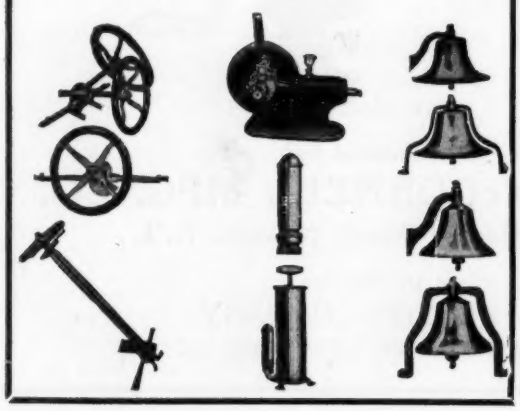
Prices right, superior quality of material

Mention this magazine — Special discount next thirty days.

Michigan Wheel Company

Office and Factory:

GRAND RAPIDS, MICHIGAN, U. S. A.



The Cruise of the Kids

(Continued from page 26.)

"Name o' Johnson," replied the Camera-Man.

"How do you know?"

"That's always their name—in the Ten Thousand Islands."

"Are outlaws dangerous in this wilderness?"

"Not a bit; they're not looking for more trouble, they've had enough."

Every day was a picnic to the kids They went about in motor boat and canoe; inspected trees and gathered fruit from the curious custard apple and the cocoa-plum, and leaves of fragrant myrtle and sweet smelling bay. They followed little channels out into the Glades, finding flowers and birds, and explored small creeks for turtles and 'gators. The Dude climbed the mast, and told of the beautiful view of the Glades till the Hobo looked so appealing that a bo'sun's chair was rigged. She looked at the chair, at the mast, at the camera, and then sadly shook her head as she turned away.

Day by day the kids begged for more time until one morning when I held an accusing almanac before their eyes. They were due for delivery in New York in four days. A client of the Dude was to be executed on the fifth day if he wasn't home to save him. The Hobo had pledged to her people a word that was never, or at least seldom, broken.

The tide was against us, the wind no help, and half of our first day had departed when we arrived back at the Gulf. As we headed on our course northward the wind was in our teeth, blowing half a gale. There was a heavy sea, and we couldn't have made a mile in a week. New York in four days was impossible. The Dude mourned loudly for his condemned client, and the Camera-Man suggested Miami on the east coast. In another minute the unreefed sails were being hoisted, and soon the nose of the Irene was deep in the water, while big waves lifted her stern, and the pitch of the motor was raised half an octave. Soon we were off Shark River Bight, an hour later opposite the cocoa palms of Northwest Cape, and in two hours more passing Sandy Key with a fourth of the miles from Harney to Miami behind us. An hour later came our first mischance. We ran on a mud bank at Horse Neck Shoals. Slowly the Irene's headway died until she seemed hopelessly stranded, but she never quite stopped, and, helped by the young skipper, who went overboard and heaved mightily under her stern, while the rest of us pushed with poles, began to move faster and soon was clear of the shoal. We had daylight left for the cut through the bank by Lignum Vitæ Key and the channels along the Matecumbies and Largo in Barnes' Sound to Tavernier Creek, where we anchored.

The last day of the cruise opened cloudless and calm. Sails were useless, and we motored slowly in narrow channels of shallow bays and in canals cut through banks and wooded keys of Biscayne Bay. The water was clear, and we could see under its surface every motion of a family of sociable dolphins that played around us, and made occasional clumsy pretense of alarm at our approach. A score of man-o'-war hawks, harbingers of storm, soared with motionless wings in graceful curves high above us. In a narrow canal, through which an adverse tide was crowding the waters of the bay, the swift current swept the Irene on a bank. Here we were stranded for an hour, and the Dude again became anxious, but soon forgot his condemned client in the sport of spearing the crawfish that were scurrying along the bank.

As we passed Arseniker Keys a favoring breeze sprang up, which, increasing to all we could carry, sped the parting guests up to Miami and ended "The Cruise of the Kids."

Trade **LOWELL** Mark

Reg. U. S. Pat. Off.

DUCK

Ask the Winners

HERE ARE TEN WINNERS WHICH HAVE CROSSED THE LINE FIRST WITH LOWELL DUCK

ELMINA II	CHERRY CIRCLE
DERVISH	QUEEN
DORELLO	AVENGER
GENESEE	HAYSEED II.
VIM	ELEANOR

THERE ARE HUNDREDS OF OTHERS

Regular for Cruising

Special for Racing

Lowell Weaving Co.

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DENTACURA

Great personal advantage follows the daily use of Dentacura Tooth Paste. Its cleansing properties are faultless; its action in preserving the teeth from decay unique. Nothing else just as good. Endorsed by thousands of dentists. For sale everywhere. 25c. a tube. *Sample* and testimonials *free*.

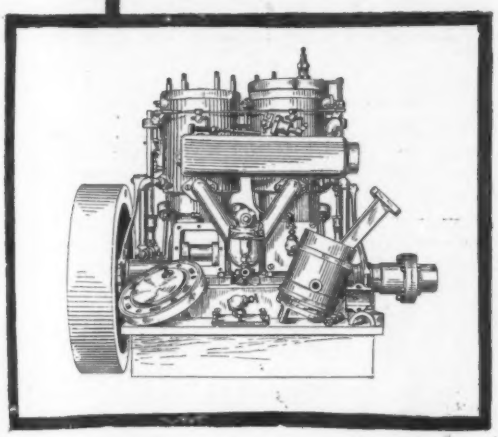
DENTACURA CO., 213 Alling St., NEWARK, N. J.

THE BRIDGEPORT

"The Motor that Motes"

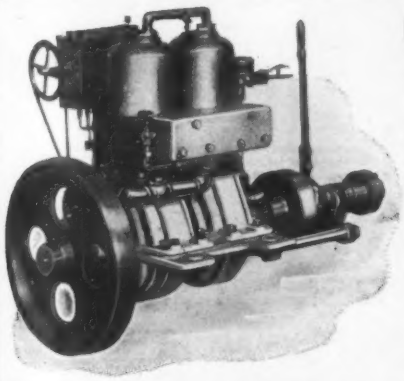
If you have tried the rest, you'll be satisfied with a Bridgeport

Two cylinders with split base, assembled on one piece bed plate. Perfect alignment of crank shaft bearings. Easy to get at. Interior of one cylinder open for inspection, absolutely nothing disturbed on the other. Send for catalog describing other features.



BRIDGEPORT MOTOR CO., Inc.
BRIDGEPORT, CONN.

THE MOTOR THAT MOTES



T & M MARINE MOTORS

"Those who buy T & M's are never regretful"

Cut illustrates 18 h.p. Special copper jackets, aluminum bases, etc. 300 pounds.

4 sizes in this type

The Engine that wins so many races.

Catalog and Treatise Free

We also have an Accessory Catalog.

Termaat & Monahan Co., Oshkosh, Wis.

SPONTANEOUS APPROVAL FROM ONE WHO KNOWS

MIDGET
Height 7 Inches

New Haven, June 4, 1909

Gentlemen :—

The little "Dwarf" set of lights, brass, Fresnel lens, just received and they certainly are all right. Am more than pleased with them.

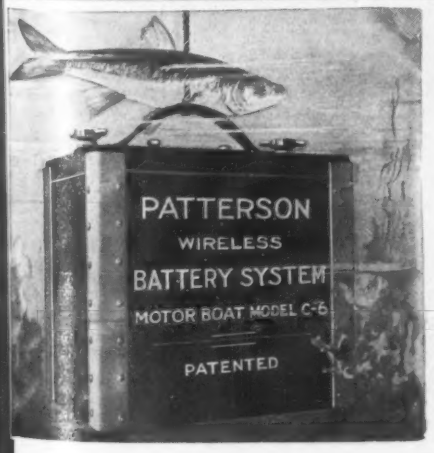
Born and brought up a sailor, then learning the sheet metal workers trade which I have followed for 25 years, I ought to know what I am talking about. Use my name if you ever care to.

Yours very respectfully,
J. E. Stannard,
65 Orange Street, New Haven.

Descriptive Lamp Booklet on request

THE **PORTER** CO.
194 Water Street NEW YORK

DWARF
Height 8 Inches



Patterson Wireless Dry Battery System

"You Screw the Battery in—We've Done the Rest."

You'd hardly ask your Battery Set to work like this—but if you'll use the "Patterson System" when the emergency requires, **it will do it.**

This System revolutionizes the old methods of Battery Sets—its fundamental principle is a Screw Top Cell Unit, screwing into a solid hard rubber plate, which plate forms a waterproof cover for the entire outfit; batteries are suspended from the plate. There can be **no loosening connections—no bad contacts—no troubles from dampness and corrosion!**

A Wireless Battery Holder will not only maintain a Set of Batteries at **HIGHER AMPERAGE**, but will in a year or so **save the Motor Boat owner its entire cost from the greatly increased life each Set of Cells will give,** because of the Holder's scientific design for their protection and economical maintenance.

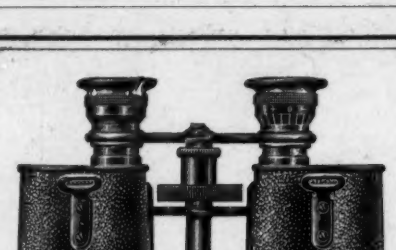
A **WIRELESS DRY BATTERY HOLDER** will last a lifetime.

Emergency Clips are provided so old style "Binding Post" Cells can be used any time "Screw Top" Cells are not at hand.

Send for Bulletin 37.

STANLEY & PATTERSON, 23 Murray St., New York

NOTE.—*Battery Cells to fit* **"PATTERSON" WIRELESS DRY BATTERY HOLDERS** *are now regularly manufactured by all prominent makers of Dry Cell Batteries throughout the country. When ordering Batteries simply specify that the* **"PATTERSON" SCREW TOP CELL** *is required in place of the old Binding Post Type of Cell.*



IN outdoor life, where increased vision is an added pleasure as well as ofttimes a necessary requirement,

Bausch & Lomb-Zeiss Stereo Binoculars

will prove indispensable. Their high power, brilliant illumination and unique Stereoscopic properties enable you to see distant objects as clearly in detail as though at hand.

¶ The deep and natural effect of Stereoscopic images is peculiar to our binoculars alone and is but one of the many distinctions that place these glasses in a class by themselves.

¶ For sale by all dealers.

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Our Name on a Photographic Lens, Microscope, Field Glass, Laboratory Apparatus, Engineering or any other Scientific Instrument is our Guarantee.

Bausch & Lomb Optical Co.
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Tile Yacht Stoves

Only suitable **stove** on the market. Of English design, tile to **harmonize** with **cabin furnishings.**

PIPE HOLE IN TOP OR BACK

Write for Circular

MURDOCK-SHAW CO.
125 FEDERAL ST.
BOSTON

Motor Boat Cruising Among the 30,000 Islands of Georgian Bay

(Continued from page 43.)

In making this cruise from Chicago it is necessary to carry on board the following charts:

United States coast chart of Lake Michigan.

United States general chart of Lake Huron, including Georgian Bay and North Channel.

United States chart No. 1, St. Mary's River from Lake Huron to Twin Islands.

United States coast chart No. 7, northeast coast of Lake Huron, entrance to Georgian Bay, east end of North Channel.

United States chart No. 8, north coast of Lake Huron and North Channels.

As to clothing for the trip, I have always found a few extras for warmth all that were necessary in this locality. In conclusion, I call your attention to a few don'ts:

Don't catch any more fish than your party can eat.

Don't kill any game for fun or out of season.

Don't take any fish that are smaller than the game laws allow.

Don't disfigure nature by painting your name, etc., on the rocks

Don't set fire to the grass or timber just to see it burn.

Take out your license to fish among the 30,000 Islands at Little Current, Ont.

When Yachts Raced for Cash

(Continued from page 31.)

around Block Island and return. It was a mighty contest, the boats sailing side by side most of the time. Widgeon finally won the $1,000 bet by a little more than a minute.

The greatest match race ever sailed anywhere was that of Pierre Lorillard's centerboard schooner Vesta, George Osgood's keel schooner Fleetwing, and James Gordon Bennett's keel schooner Henrietta for $90,000—$30,000 a side. The contest grew out of an argument between Mr. Lorillard and Mr. Osgood as to the relative merits of their boats. The match, as arranged between these two yachts, was for $10,000 a corner. Later Mr. Bennett entered and the stake was increased to $30,000. The race aroused national interest. Newspapers of the day teemed with opinions as to the outcome, and when one day in mid-winter the three boats set out for Sandy Hook for the start thousands gathered at the Battery to see them depart for the line, and excursion boats, laden with passengers, accompanied the racers over the first few miles of the course. It was a bitter, tumultuous race, in which Fleetwing lost six of her men overboard. Henrietta won, making the trip of 3,106 miles in 13 days, 21 hours and 45 minutes.

Later, in 1874, W. T. Garner, afterwards drowned when his schooner Mohawk capsized off Staten Island, raced his schooner Magic against W. H. Langley's Comet, a fine, swift fore-and-after. Nothing but this race was talked of for weeks before this event, and it is recorded that even women wagered with one another as to the outcome. In all, aside from the main stake, partisans of one boat or the other wagered a sum of money estimated at $100,000 on their favorite. Magic won. Whether the immense sum of money lost by yachting enthusiasts dampened the ardor for match racing is questionable, but the fact remains that after that race it is impossible to find in available records mention of another important race on wager.

Yachtsmen thereafter seemed content to obtain satisfaction through the medium of cups, punch bowls and other trophies, and the sport was then and there taken from the category of horse racing and pugilism.

BUILD YOUR OWN BOAT

AND SAVE 60%

Money Making Recreation

You will enjoy building your own boat from frames or patterns by our method. Thousands of inexperienced amateurs are doing it every day.

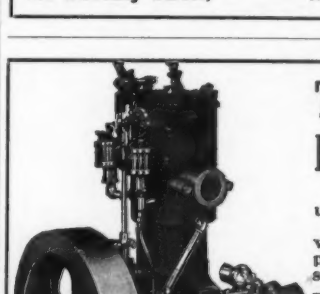
You eliminate the boat-builder's profit, heavy selling expense and excessive freight charges. This means 60% to 75% of the cost in your pocket.

We supply you with frames you can assemble without boring a hole or cutting a shaving. Our "NIAGARA QUALITY" frames are years ahead of all others. They are designed by the best naval architects and are perfection in every detail.

Our models, in competition, both for speed and seaworthiness are considered by owners everywhere to be the best in the world.

Boats in any stage of construction, from patterns to completed boats ready to put in the water and run. Let us show you what we can do. Your interests demand a copy of our catalogue. It means money and satisfaction to you. Write us.

NIAGARA MOTOR BOAT COMPANY
131 Sweeney Street, - - - No. Tonawanda, N. Y.



The ROYAL ENGINE

A simple, practical up-to-date motor. The design and workmanship insure power for steady service.

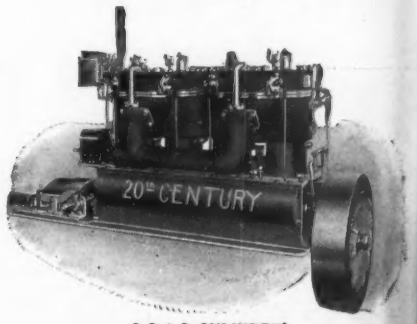
Royal Equipment Co.
157 Housatonic Ave.
Bridgeport - Conn.

20th CENTURY

THE BEST MOTOR BUILT

SIMPLE DURABILITY AND RELIABILITY **ECONOMICAL**

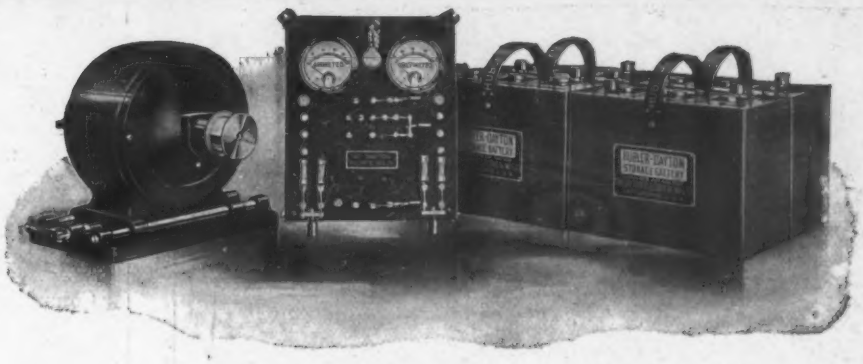
WE INVITE INSPECTION



2-3-4-6 CYLINDER
10, 12, 18, 24, 30, 50, 80 and 120 H. P

Write for catalogue of our latest motors. The improvements on our 1909 machine keep it at the "top of the heap." Visit our factory and compare our motor, with other makes in prices, etc.

N. Y. YACHT, LAUNCH AND ENGINE CO.
MORRIS HEIGHTS, NEW YORK CITY



This Outfit will Furnish Light for Your Boat as Long as Your Boat Lasts

You know the pleasure of running your motor boat at night.

And the pleasure of making long runs of several days at a time, when you live right on your boat.

The comfort and enjoyment of trips like these require a perfect lighting system for your boat.

Not smelly, smoky oil lamps that only modify the darkness, but brilliant, white electric light that illuminates the boat from stem to stern and makes the cabin as bright as day. In short, the light that can only be had by the Dayton Electric Launch Lighting Outfits.

Electricity the Only Safe, Clean, Healthful Light

Of course, you understand that electric lights on your boat would be infinitely better than old-fashioned oil lamps. They are not only cleaner, healthier, and safer and more satisfactory in every sense, but they are actually cheaper.

Not in first cost, of course, but decidedly cheaper in the long run.

Oil lamps are always costing money—in oil and in breakage, to say nothing of the time and trouble in caring for them.

Contrast this with the Dayton Launch Lighting Outfit. After it is installed, expense stops. It is ready to produce light at once, and will continue producing it indefinitely, at no further cost of operation.

Why It Is Cheaper

There is nothing about this electric lighting system to wear out, or run down, or cause any expense for replacement, except the electric light bulbs, and they cost so little that we can leave them out of the discussion entirely.

Every part of our system is built for long time service, and is just as permanent an equipment for your boat as the engine.

If you should want to sell your boat its value is increased by the installation of our electric lighting system.

A Complete, Self-Contained System

A Dayton Launch Lighting Outfit is made up of a dynamo, to generate the current, run by the engine; a switchboard that gives complete control of every light; and a storage battery that accumulates the current from the dynamo, and from which the current is drawn for the lights.

Now for a few words about the Dayton Dynamo.

This is of the same type as our famous Apple dynamo used throughout the world for ignition work, and is built especially for marine use. It is wholly enclosed, and is proof against oil, water and dust. The wearing parts, which are few in number, can be replaced when worn, at small expense, all working parts are accessible by means of a hinged door.

The Dayton Dynamo is as perfectly made as the largest dynamos used for city lighting work. The windings are all of double insulated magnet wire, and are thoroughly impregnated.

The Storage Battery

The Storage Battery used in this system is our Hubler-Dayton Storage Battery, made in our own factory. This is well-known in the ignition field as the simplest, most efficient battery made.

The battery is made up of a number of units, each unit being a perfect 2-volt battery. These are assembled together in solid oak cases, to form a complete battery of the capacity required for lighting systems of various capacities.

The Hubler-Dayton has more active plate service than any other battery of similar rated capacity, giving actually more working current than the rating. It is built to withstand the roughest usage, and is not affected by jolts, jars, or rough handling of any kind.

By a vent plug of unique design, the gases are allowed to contract and expand without damage to the battery, and there is no chance for the acid to splash, and corrode the top.

The Switchboard

The switchboard acts as a terminal for all wires between the dynamo and the battery. This allows perfect control of all the lights.

Provision is also made for drawing the current from the battery when the dynamo is not running.

A Perfect Ignition System Without Cost

With this lighting outfit, you have also an inexhaustible source of ignition current for starting, running and reserve. The Apple Ignition Dynamo is known among thousands of boat owners as the most perfect system of ignition known, and the same principle is used in this larger system, designed primarily for lighting. It really amounts to having a perfect ignition system given to you free when you buy a Dayton Launch Lighting Outfit.

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Calendar for Racing Events for July, 1909

July 3—
Corinthian Y. C.—Philadelphia.
N. Y. Motor B. C.—To Albany and return.
Seawanhaka Corinthian Y. C.—15-footers.
Duxbury Y. C.
American Y. C.—Annual, Long Island Sound
Narragansett Y. R. A.—Long-distance race Pawtucket.
Boston Y. C.—Club, Marblehead.
Bensonhurst Y. C.
Brooklyn Y. C.—Cape May race.
Columbia Y. C.—Lake Michigan championship
Lakewood Y. C.—Class championship.
South Bay Y. C.—San José, Cal.
New Haven (Conn.) Y. C.—Annual regatta.
Alaska-Yukon-Pacific motor boat races on Lake Washington, Seattle, under the auspices of Pacific International P. B. Association and M. B. Club of Seattle (3-10).

July 4—
New York Motor Boat Club.
Manhasset Bay Y. C.—One-design.
Lake Champlain—Three hundredth anniversary power boats (4-9).
Savannah (Ga.) Motor Boat Club, annual regatta.
Jubilee Y. C., Beverly, Mass.—Third race for Vittum Cup.
Muscatine Launch Club.—Race from Muscatine to Burlington, Ia.
Williamette Motor Boat Club, Portland, Ore.
Pacific M. B. Club, Belvidere, Cal. (4-5).

July 5—
Duxbury Y. C.
Larchmont Y. C.—Annual.
Hartford Y. C.—Annual.
Washington Park Y. C.—Open.
Taunton Y. C.—Power boats.
Fall River Y. C.—Power boats.
Corinthian Y. C.—Marblehead. Open.
Keuka Y. C.—Power boats.
Columbia Y. C.—Michigan championship.
Lakewood Y. C.—Gardner Cup.
Canandaigua (N. Y.) Boat Association.—Annual regatta.
Bellport (L. I.) Y. C.
Albany Y. C.—Race from Albany to New York.
Detroit M. B. Club.—Annual regatta.
Great South Bay Yacht Racing Association Races at Bay Shore.
Hempstead Bay Y. C.—Motor boat races.
Tappan Zee L. C.—Open.
Annual Regatta Mississippi Valley P. B. Association.—Burlington, Ia. (5-6).

July 7—
New York Y. C.—Glen Cove to Newport.

July 8—
Philadelphia Yachtsmen's Club.—Race from Barnegat Inlet to Atlantic City.

July 9—
New York Y. C.—Newport.

July 10—
New York Y. C.—Annual, Newport.
Lakewood Y. C.
Seawanhaka Corinthian Y. C.—15-footers.
Duxbury Y. C.
Indian Harbor Y. C.—Annual.
Atlantic Y. C.
Sportsmen's Club.—Philadelphia auxiliary to Beach Haven.
Edgewood Y. C.—Open.
Corinthian Y. C.—Marblehead, club.
Columbia Y. C.—Open.
South Boston Y. C.—Cruise.
American Y. C.—Newburyport, club.
California Y. C.—Open.
Eastern Y. C.—Cruise to Bar Harbor (10-17)

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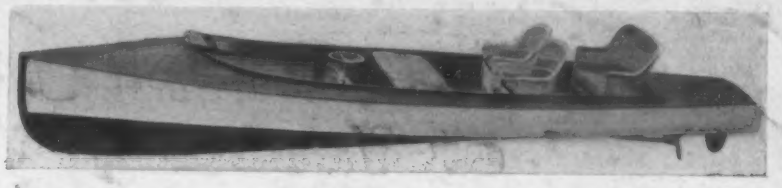

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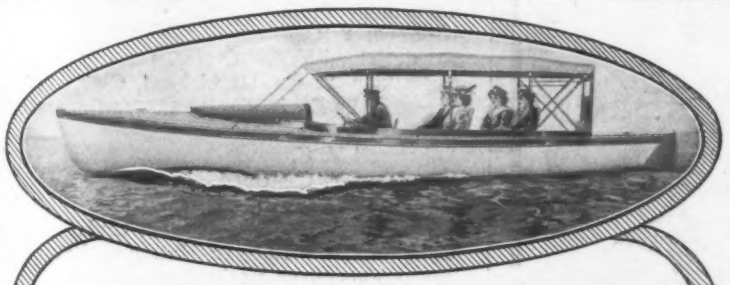

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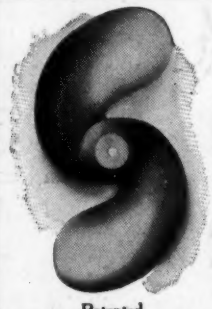

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Pittsburg Launch Club.—Open race.
Holly Beach (N. J.) Y. C.—For Commodore's Cup.
Detroit M. B. Club.—Club race.

July 11—
Cleveland Motor Boat Club, Cleveland, Ohio.
Ohio River Launch Club.

July 12—
New York Y. C.—Newport to Glen Cove.

July 15-17—
Ocean City Y. C.—Regatta.

July 17—
Lakewood Yacht Club.
Seawanhaka Corinthian Y. C.—15-footers.
Duxbury Y. C.
New Rochelle Y. C.—Power boats.
Manhasset Bay Y. C.—One-design.
Conanicut Y. C.—Open.
Crescent A. C.—Open.
Crescent A. C.—Marblehead race.
Columbia Y. C.—Michigan City race.
Jackson Park Y. C.—Open regatta.
Corinthian Y. C.—Marblehead Club.
Detroit M. B. Club.—Obstacle race.
Holly Beach Y. C.—For Holly Beach City Cup.
Boston Y. C.—Cruise (17-24).
Larchmont Y. C.—Race week.

July 18—
California Y. C.—Wallace Trophy.
Taunton Y. C.—Power boats around Rhode Island.

July 19—
Fall River Y. C.—Power boats.
Quincy Y. C.—Quincy Cup (19-24).

July 22, 23, 24—
Island Heights Y. C.—Inter-bay catboats.

July 24—
Chicago-Mackinac race.
Larchmont Y. C.—Open.
Brooklyn Y. C.
Rhode Island Y. C.—Cruise.
Corinthian Y. C.—Marblehead, Club.
Seawanhaka Corinthian Y. C.—15-footers.
Duxbury Y. C.
Lakewood Y. C.
Squantum Y. C.—Open.
Winthrop Y. C.—Inter-cup.
American Y. C.—Newburyport Club.
Chicago Y. C.—Race to Macatawa Bay.
Royal Vancouver Yacht Club.—Club.
Detroit M. B. Club.—Cruise to Chatham.
Holly Beach Y. C.—For Wildwood Crest Cup.
Ohio River Launch Club.
Vancouver (B. C.) Royal Yacht Club.—Motor boat races.
Canadian P. B. Association.—Long-distance race, Toronto to Clayton, N. Y.

July 31—
Riverside Y. C.—Annual.
Atlantic Y. C. and New Rochelle Y. C.
Race around Long Island for Yachting cups.
Manhasset Bay Y. C.—One-design.
Fall River Y. C.—Ocean race.
Edgewood Y. C.—Streetor Cup Race.
Taunton Y. C.—Power boats.
Corinthian Y. C.—Marblehead. Open.
Duxbury Y. C.
White Lake Y. C.—Open.
Colonial Y. C.—Around Long Island, Power.
Manhasset Bay Y. C.—Cornfield L. V. race.
California Y. C.—Open.
Lakewood Y. C.
Tappan Zee Y. C.
Bellport (L. I.) Y. C.
Detroit M. B. Club race.
Pequonnock Y. C., Bridgeport, Conn—Joint races of local clubs.